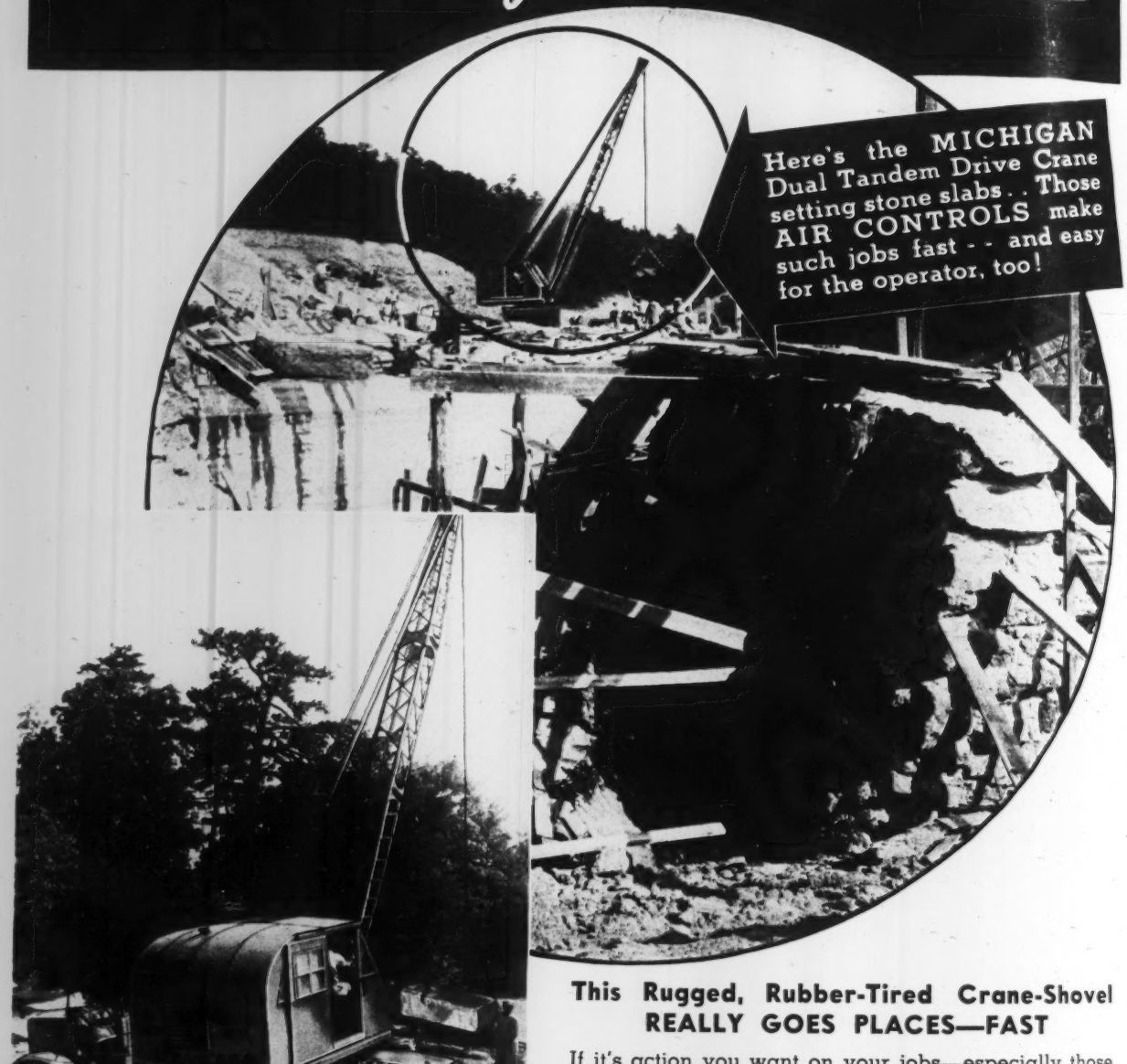
ENGINEERING NEWS-RECORD

ıg out Deer Creek Dam, which will be completed this month on the Provo River project in Utah.

A CRANE--WHERE *you want it*-AND WHEN!


Here's the MICHIGAN Dual Tandem Drive Crane setting stone slabs . . Those AIR CONTROLS make such jobs fast - - and easy for the operator, too!

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The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • AUGUST 7, 1941

Special defense road bill vetoed by the President

Bill authorizing additional funds for the defense highway network and camp access rejected because of limitations on where network money can be spent

President Roosevelt on Aug. 3 vetoed the $320,000,000 defense road bill just passed by Congress, basing his objection to the bill chiefly on the fact that the bill makes mandatory the distribution of the $125,000,000 for work on strategic highways among all the states on the regular federal-aid basis. In his veto message the President said "The critical deficiencies in highways and bridges that may require prompt correction in the interest of defense cannot be reasonably related to the population of states or other factors that enter into ordinary apportionment. The result, therefore, is the necessity for appropriation of a far larger sum of money to meet immediate requirements than would be necessary if these funds were applied to critical deficiencies without the apportionment method." The President, in his message of last June, had asked for $25,000,000 without this limitation on where it was spent.

Parking fund opposed

Also disapproved by the President was a provision in the bill permitting expenditure of part of the $125,000,000 for parking areas of strategic highways where parking on the highways is prohibited by local law. The President does not feel that this is a proper expenditure of federal funds, especially where the possible benefits are dependent on local law enforcement.

Also disapproved was the authority granted the Public Roads Administration to send an unlimited number of its employees to technical schools for special training and a provision for recalling retired employees of the PRA to active duty during the emergency.

Access roads

The bill carried $150,000,000 for access roads to military camps and defense industries, or $50,000,000 more than the President has asked in his message to Congress. This, he said, was not objectionable as appropriations could be adjusted to actual needs.

Also included was $10,000,000 for flight strips parallel to highways, $10,000,000 for advance planning for the strategic network and for bypasses around or extensions of main highways through municipalities, and $25,000,000 to reimburse states for highway damage done by military maneuvers. The only one of these to be criticized by the President was that relating to damage to highways, which he said departs from established practice.

Defense needs widespread

Backers of the bill point out that the President apparently ignored the fact that there are defense roads needed in all states and that the money was to be spent only on sections of the strategic network as determined by the War Department. To date the War Department has not declared any one part of the strategic network to be of more urgency than another.

The bill vetoed by the President was to authorize appropriations in excess of those authorized under the regular federal-aid highway act. Most urgently needed money is that for access roads, there being no way in which money can be diverted to that purpose in many of the states.

Deer Creek Dam will be finished this month

Main storage for the Provo River project in Utah, being built by the U. S. Bureau of Reclamation, will be provided by Deer Creek Dam to be completed this month. This storage will be supplemented by diversions from the Duchesne and Weber rivers.

Construction of the dam has involved about 3,000,000 cu.yd. of fill. Storage will be used for both irrigation and domestic service, including delivery through a 47-mile aqueduct to Salt Lake City.

E. O. Larson is construction engineer for the U. S. Bureau of Reclamation on the Provo River project, and J. A. Beemer is resident engineer at Deer Creek Dam. Rohl-Connolly Co., are contractors for the dam.

PRIORITIES GUIDEPOST

Current notes on what, who and how

IF YOU BUY tools and equipment of standard type, i.e., stock items as distinct from special designs (and the majority of all contractor purchases are of this type) the OPM Priorities Division needs your active cooperation in a plan to keep these items continuously available to you insofar as your defense requirements are concerned. The cooperation consists in monthly advice to your sources of supply (distributors or manufacturers' agents) as to the percentage of your business (total contracts) that relates to defense. This advice is submitted in the form of affidavits, forms for which are available from distributors and manufacturers.

Such affidavits form the first link in a chain of actions whose end point is to provide manufacturers with a figure as to their own defense raw material requirements upon which they can secure a priority rating; unless they have this figure they will readily run into a material shortage. User affidavits, such as above, are collected by distributors from all their customers; totaled, these permit the distributor to calculate the percentage of his sales that goes into identifiable defense channels. Distributors then make similar affidavits to the manufacturer, who in turn figures his percentage of defense sales and transmits it to OPM.

The scheme is called the Defense Supplies Rating Plan by OPM. Round-about as it is, it has been deemed the only practicable procedure by which priority advantages can be extended to that great multitude of tool and equipment items that are manufactured for stock, and yet a certain percentage of which is just as vital to defense as the special machines whose use in a specific defense operation is known prior to manufacture.

Here then are the essential features: (1) the plan is voluntary, but by cooperating you assure yourself of the availability of equipment when you need it; (2) the affidavit form is available from distributors or manufacturers; (3) the affidavit should set forth the percent of your sales (i.e. of your total contract business) that is identifiable with defense; and (4) the affidavits are rendered monthly.

A NEW limited blanket preference rating, P-5-a, has been issued by OPM to about 75 manufacturers of types of cranes and hoists that are vital to defense manufacturing plants. It takes the place of order P-5 and expands the list of materials to whose deliveries the rating may be applied. The manufacturers are permitted to apply a rating of A-1-a to deliveries of the specified materials, which include, among others, motors and electrical equipment, steel bars, shapes and plates, brass and copper tubing, gasoline and diesel engines, and paints and lacquers. The P-5-a rating is similar to that already granted to producers of freight cars, merchant ships, and certain airframes and airplane engines.

COPPER has been placed under 100 per cent priority control. Previously the industry had set aside 20 per cent of its monthly production from which non-defense orders could be filled after defense demands had been met. A rating of A-10 is assigned to all copper deliveries for defense orders that have not received a higher rating.

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Chlorine priorities not to effect sanitation uses

Although chlorine was placed under full priority control July 28 by the Division of Priorities of the OPM, restrictions on the use of chlorine for water purification, sewage treatment, and other sanitation purposes are not expected to develop. This is because (1) OPS orders, that certain civilian uses of chlorine which is considered to include those mentioned above, be exempted from the restrictions and (2) the OPACS has recommended that adequate supplies of chlorine be allocated for those three purposes.

Photo by British Combine

Ford bomber plant to cover 58.5 acres

Structural steel erection is moving forward at a rapid rate on the Ford Motor Co.'s bomber plant where Consolidated B-24 ships will be built two miles from Ypsilanti, Mich. The plant is to be known as the Willow Run airplane factory, and is about 20 miles from the main Ford plant at River Rogue.

When completed, early next spring, the plant will cover 58.5 acres under one roof. Included in the layout of the plant is an airport, hangar, assembly building (3,200 ft. long), machine shop, power plant and offices. Total floor area, including hangar, will be 3,700,000 sq. ft., while 2,547,000 sq. ft. of factory will be provided. Structural steel required for the building framework alone amounts to 25,000 tons. There will be 1,000,000 sq. yd. of airport runway, and the total estimated cost of buildings and equipment is $47,000,000.

Bryant & Detwiler Co., Detroit, hold the superstructure contract, while J. A. Utley has the foundation contract. Albert Kahn is the architect and engineer for the project.

Tacoma Narrows Bridge trial starts next month

The court has set September 8 as the date for beginning of a trial in Pierce County superior court at Tacoma, Wash. to determine actual damage to the Tacoma Narrows Bridge. The Washington State Toll Bridge Authority and 22 insurance underwriters are parties to the suit. Judge E. D. Hodge overruled the companies' demurrer which sought an appraisal before the trial opened. The state claims full loss, or $5,200,000, while insurance companies contend damage amounted only to $1,800,000.

Oliver Malm, former assistant attorney general and legal advisor to the toll bridge authority but now with the federal department of justice, has been given a leave of absence by the latter department to assist the state in presenting its case.

Meanwhile the Washington State Toll Bridge Authority last week issued its first call to retire bonds on the Lake Washington Pontoon Bridge and the collapsed Tacoma Narrows Bridge. On September 1, the authority will pay off bonds Nos. 1 to 145 on the Lake Washington bridge and Nos. 1 to 85 on the Narrows suspension bridge. Funds for retiring the former bonds come from tolls charged for use of the bridge. For retirement of bonds of the Tacoma Narrows bridge, the authority is using bonds on hand when the bridge was completed.

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New cantonment program hinges on passage of extended service bill

With advanced planning already underway and 23 sites selected, an early start on the new program will be possible when funds are made available

With Congressional approval of the plan to keep the Army selectees in service for another 18 months, which is expected to be granted this week, the start of another cantonment construction program to increase housing for additional draftees will no doubt be underway in the very near future. At present one and one-half million men are being housed. This number can be increased by adding to the regular army and by calling up sufficient men under the Selective Service Act to increase those troops from 650,000 to the 900,000 men now authorized. Both of these actions are expected. In addition, it is highly possible that Congress may remove the 900,000 limit and may permit still more troops to be trained under the Selective Service Act.

Work to date on the new program includes approval of 23 camp sites and award of architectural-engineering contracts for 11 of the projects. This work is being done under a special $15,000,000 appropriation.

A list of firms holding contracts for the planning work for nine camps was given in *ENR* May 29, 1941, p. 849. On July 16 the War Department increased the number of firms to eleven by awarding an architectural-engineer contract to Freeze & Nichols, Ft. Worth, Tex., for a camp at Bastrop, Tex., and a similar contract to Fisher, Fisher & Hubbell, Denver, Colo., and Paulette & Wilson, Topeka, Kan., for a cantonment at Colorado Springs, Colo.

The remaining twelve sites approved are located as follows: Corvallis, Ore.; Durham, N. C.; Marysville, Calif.; Morganfield, Ky.; Camp McCoy, Wis. (expansion of existing reservation); Ozark-Enterprise, Ala. area; Paris, Texas; West Yellowstone, Mont.; Hopkinsville, Ky.-Clarksville, Tenn area; Waco, Tex.; Fort Huachuca, Ariz.; and Venice, Fla.

The average camp is planned to accommodate roughly 30,000 troops, and the average cost is put at $23,000,000. Specifications call for the standard type construction, similar to that used in last winter's cantonment program. The work may be done by general contract or on a cost-plus-fixed-fee basis. In either case, a much more satisfactory set-up as to payment can be expected because of the advance planning. The firm holding the planning contract for a camp is expected to receive $50,000 for that work alone and then an additional $25,000 where supervision of construction is also handled.

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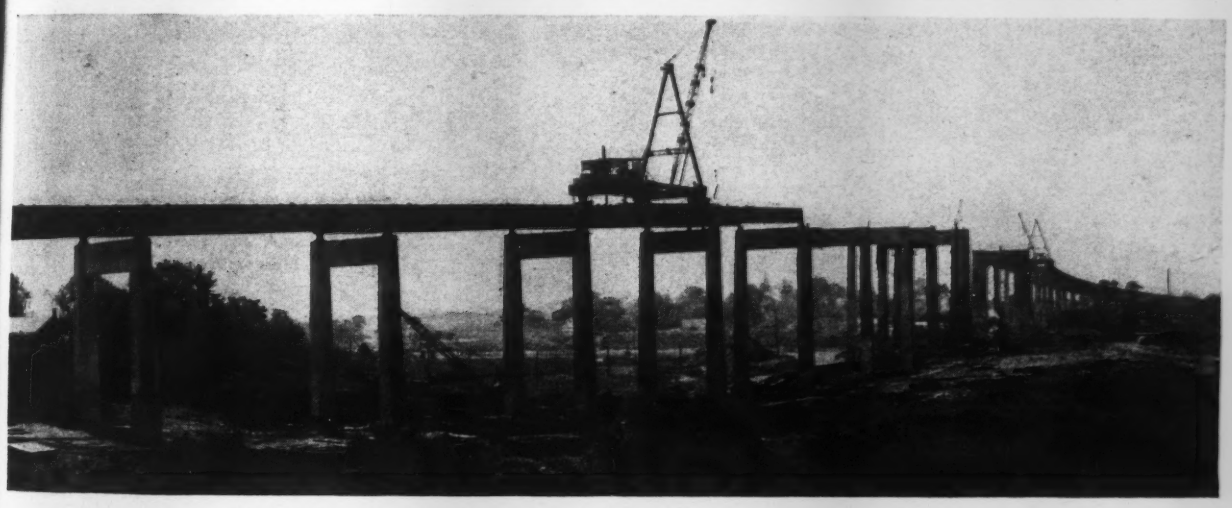
Structural steel orders double 1940 figures

The American Institute of Steel Construction reports that structural steel orders booked in June were 13 percent ahead of the monthly average for the entire first half of 1941, and new orders received in the first half of this year were more than double those of the same period, in 1940.

The first six months' orders in 1941 totaled 1,298,432 tons compared with 619,231 in the first half of 1940. Shipments for the first six months of this year totaled 1,055,946 tons compared with 655,012 in the first half of 1940.



Steel superstructure goes up on St. Georges Bridge

In place of the vertical lift highway bridge at St. Georges, Del., over the Chesapeake and Delaware Canal which was demolished in a ship collision on Jan. 10, 1939, a new high-level steel tied-arch four-lane bridge is now under construction at a site about 600 ft. west of the original location crossing. All the work on the substructure of the span, contract held by Penker Construction Co., Cincinnati, Ohio, has now been completed.

Rapid progress is being made on the approach superstructure with better than two-thirds, of the steelwork completed. Only one span remains to be joined with steel on the south side and only two spans to be joined on the north side.

The main tied-arch span will be 540-ft. long. A connecting link with the DuPont Highway, the arch, giving 135-ft. shipping clearance, is flanked on each end by 1,800 ft. beam and girder approaches. There will be two 23-ft. roadways divided by a 2-ft. curb strip, and one 4-ft. sidewalk. Work was begun on July 1, 1940, and with construction about 70 percent, it is expected that the bridge will be opened to traffic in December.

The bridge is being built for the Corps of Engineers with the superstructure contract held by Phoenix Bridge Co. with Harry Archinal, superintendent. Approach contractors are George & Lynch, Wilmington, Del. Robert Fox, was substructure engineer on the job for Penker Construction Co. Parsons, Klapp, Brinckerhoff and Douglas, New York City, are consulting engineers, and William Bruce is acting as resident engineer. H. N. Crichton is resident engineer for the government.

Estimated cost, including cost of right of way by State of Delaware is $2,747,108.43.

Nation's largest powder plant built in 9 months

Maximum grade of 25 percent makes necessary huge concrete anchor blocks on 36-in. castiron water mains leading from radial well supply to construction site.

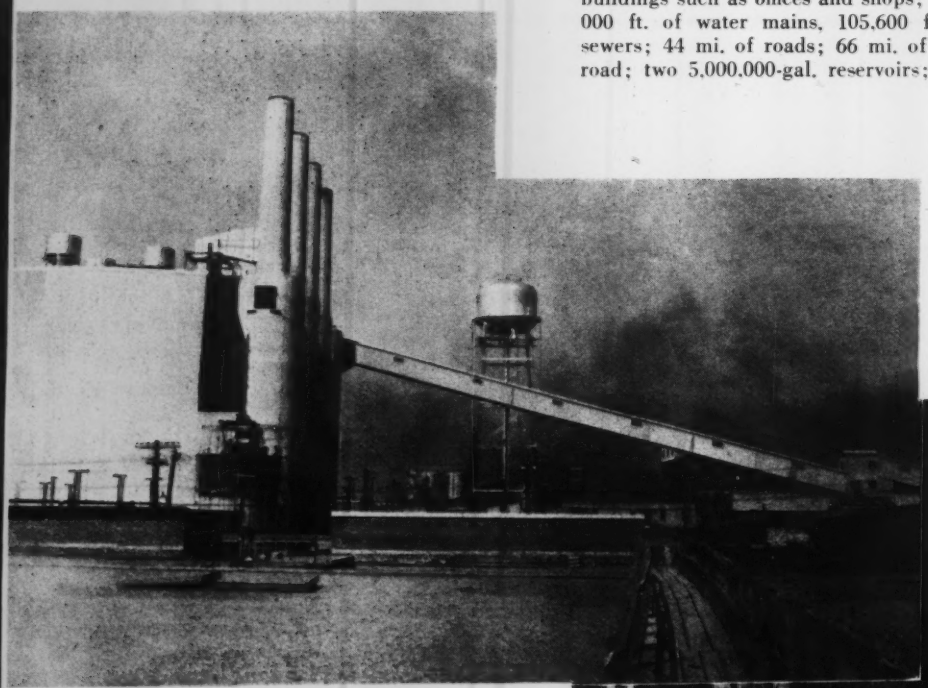
Designed to produce 600,000 lb. of smokeless powder daily, the War Department's $86,500,000 Charlestown, Ind., plant is to be completed late this summer. Two of the six production lines planned went into operation May 17, eight months and fourteen days after ground was broken. Four more are still under construction.

Because the manufacture of powder requires the handling of explosive materials through numerous processes, the 619 permanent buildings required are spread over a 5,000-acre site to minimize the danger. These structures vary in size from the massive four-story power houses to small solvent recovery sheds. About two-thirds of these buildings are of steel frame and most of the others of wood frame.

Besides the permanent buildings, construction includes nearly 100 temporary buildings such as offices and shops; 196,000 ft. of water mains, 105,600 ft. of sewers; 44 mi. of roads; 66 mi. of railroad; two 5,000,000-gal. reservoirs; and 50,000 ft. of steam and other service lines.

As many as 26,000 workmen in three 8-hr. shifts have been employed. Common labor received $0.60 per hour; carpenters $1.31¼; and other skilled workmen about that of the latter group. To expedite construction, the work is divided into nine areas with each in charge of a division engineer aided by a staff of several specialists. A new world's safety record of 7,300,000 man-hours without a lost time accident, coupled with the speed of construction, reveals that the work is well organized.

Lt. Col. R. E. Hardy, Ordnance Department, is acting as constructing quartermaster for the War Department. The general contractor is the E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Design and construction operations of the corporation in general are under the direction of H. B. Eaton, manager; J. M. Read, special assistant; and O. R. Ames, assistant manager. G. P. Church is general construction superintendent.

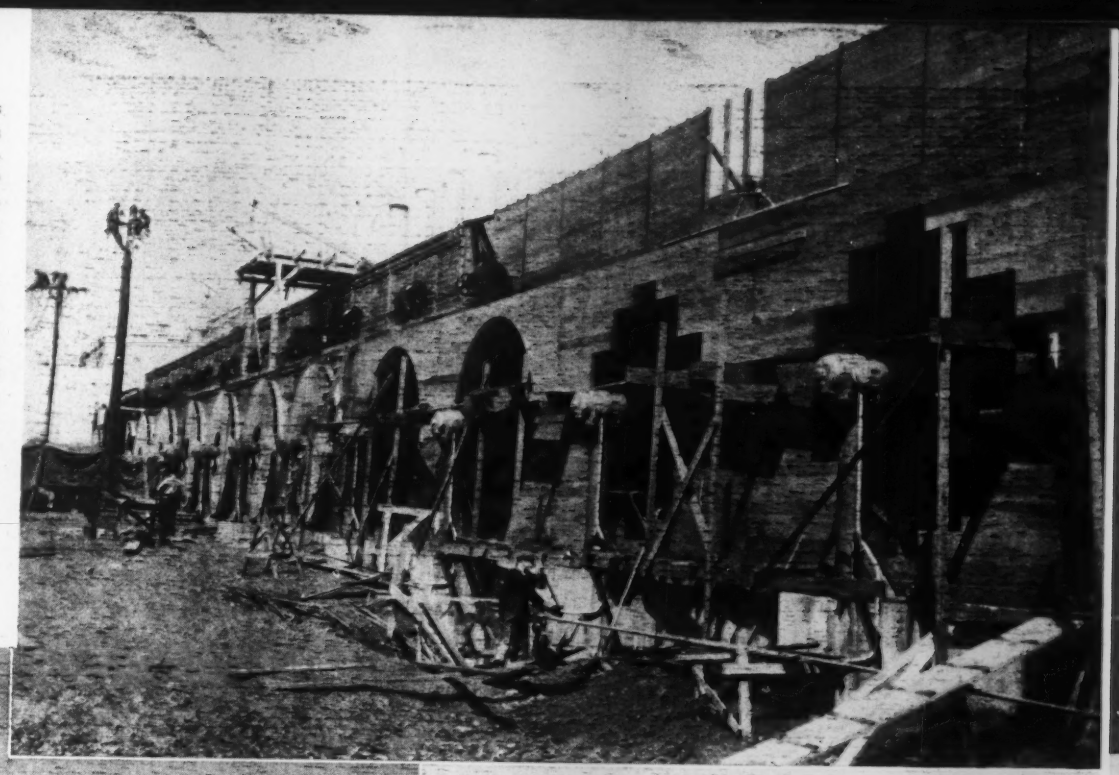


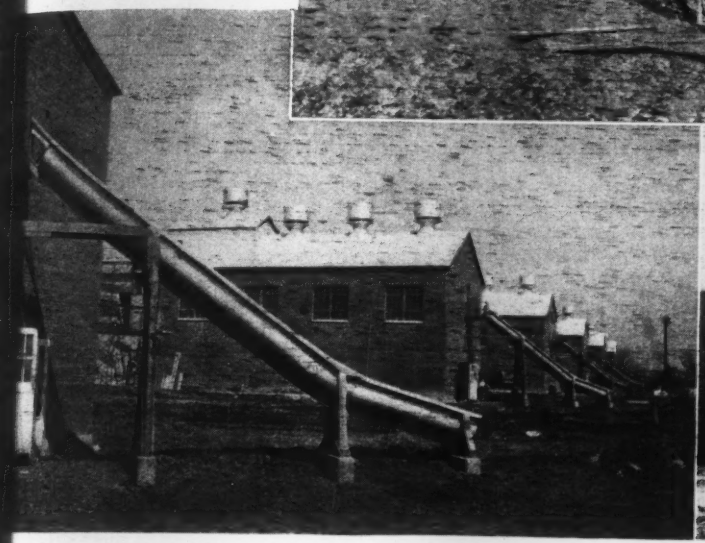
Two steel-frame power houses of type at left being built and equipped with eleven 5,000-kw. turbo-generators requiring 160,000 lb. of steam daily. Water for this purpose will pass through zeolite softeners and then be stored until needed in one of two 150,000-gal. elevated tanks of type illustrated.

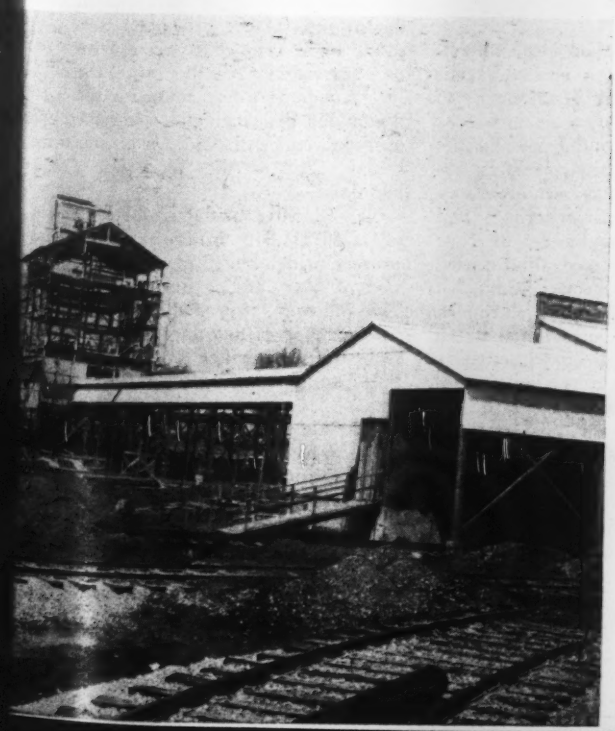
Extensive work necessary in building all the many water mains, service lines, and sewers required is well illustrated by view at right.

...enser water from powerhouses ... down through redwood baffles ... of two condenser towers, one ...hich is under construction at ... Fourteen 8-ft. fans provide for ... draft through each tower.

... of the many two-story water-...houses (where warm water re-... volatile matter from powder) ... continuous reinforced-concrete ...dations, brick bearing walls, and ...tos-cement roofs are pictured ...diately below. Chutes are safety ...re for workmen. In view at ... of water-dry houses is a group ...lvent recovery buildings, which ...f frame and brick construction ... asbestos cement roofs con-...ed to blow off easily in case ... explosion.

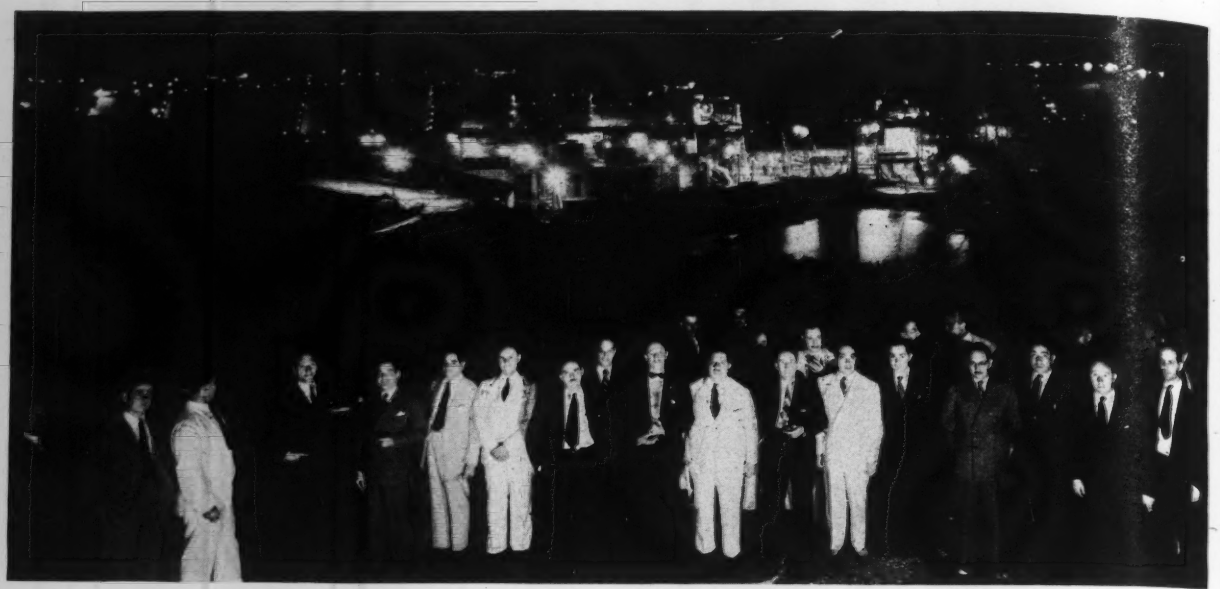






A blending tower for rifle powder, one of six such structures required, is shown under construction in background at left, while in foreground a shipping building, nears completion. Both structures are of steel-frame design with walls and roof covered by corrugated asbestos-cement.

Complete enclosure of canvas tarpaulins secured to wood framing protects large concrete structure heated by live steam lines during curing period.



South American diplomats, army and navy men visit Cherokee Dam

Diplomatic representatives, and military and naval attaches of several South American countries are being shown night construction operations at Cherokee Dam by officials of the Tennessee Valley Authority. The southern "neighbors" were on a tour of defense plants and army camps in U. S. Army transport planes.

Cherokee Dam site was farm land last July 31 when authorization for construction was signed. (ENR—Feb.27,1931 Vol.. P. 332). More than 550,000 yd. of concrete out of a total of 770,000 yd. have been placed in the 175 ft. high structure; several blocks now being topped out. Earth fill (total volume 3,500,000 yd.) is well along toward completion. Storage of water will start later this fall in a 1,200,000 acre-ft. controlled reservoir with power production scheduled for next summer through three 30,000 kw. generators. Water from Cherokee will be used at nine downriver dams through a total head of about 500 ft.

The dam is being built by TVA's own forces under Lee G. Warren, project manager; G. K. Leonard, construction engineer; and G. E. Murphey, construction superintendent.

Working model of Grand Coulee Dam to be built

A working model of Grand Coulee Dam, built on a scale of 1 to 60, will be erected on a permanent parking lot being excavated by the U. S. Bureau of Reclamation near the east end of the dam, according to information received from the Bureau of Reclamation. The visitors thus will be able to visualize the scope of the whole project, only part of which can be seen from any one point.

The model, to be built of concrete, will cover an area more than 100 ft. long and 72 ft. wide, and will include a scale model of 5,000 ft. of the downstream section of the river, and a smaller portion of the river-lake. The model will be 12 ft. long, 10 ft. high and 8 ft. wide at the base.

The flow of 1,000,000 sec.-ft. of water over the spillway of the real dam will be simulated by the flow of 35 sec-ft. of water over the model.

The model will be used first to test a proposed caisson for inspection of the spillway bucket and river bottom. Tests of the caisson model, 1x1½ in. in area, are expected to reveal how the caisson will act in the rough water and how best to control the flow of water through drainage tubes while the real caisson is in use. The actual caisson will be floated into position and sunk by flooding ballast tanks.

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Penn Turnpike extension up to federal government

An eastern extension of the Pennsylvania Turnpike, from the present terminus at Middlesex, near Harrisburg, to Philadelphia, would carry a traffic flow of 2,202,000 cars, trucks and busses in the first year of its operation, yielding receipts of $1,720,000, it has been estimated by Parsons, Klapp, Brinckerhoff and Douglas, consulting engineers, of New York, who have completed their traffic survey for the turnpike commission.

After receiving the engineers' report, Governor Arthur H. James said that the road could not be financed without federal aid; that bonds in the amount of $26,000,000 could be issued safely on the project, but that construction costs are estimated at $50,000,000.

Toll rates recommended by the survey for the Philadelphia-Middlesex extensions are: Passenger cars, 50¢; heavy trucks, $2.25; medium trucks, $1.00; light trucks, 75¢; busses, $2.00.

Maryland pushes work on long Ocean City bridge

Another step toward the completion of a new four-lane state highway bridge across the Sinepuxent Bay at Ocean City, Md., was reached last week when the last of 337 concrete piles were driven into place. Previously, 570 creosoted wood piles had been driven into the bay, which together with the 50-ft. long concrete piles, comprise the foundation for the steel and concrete bridge over its entire 2,295-ft. extension from Ocean City to the Worcester County mainland.

The $846,011 bridge is the major link of a $1,251,840 bridge and approach project, which the State Roads Commission of Maryland is having constructed. The highway approach project, costing $405,829.55, calling for a dual highway from the new bridge, westward for 1.65 miles to Herring Creek, is also under way.

Officials of the Tidewater Construction Co. of Norfolk, Va., contracting firm on the bridge, estimated that the span would be completed by Nov. 1. Bridge decking is about 58 percent complete according to company officials on the job.

CAA allocates $80,810,110 for landing facilities at civil airports

Allocation of $80,810,110 of the total of $94,977,750 appropriated by Congress for civil airport construction during the fiscal year beginning July 1 was announced on Aug. 1 by Brig. Gen. Donald H. Connolly, head of the Civil Aeronautics Administration.

Work on 216 of the projects will be done by contract, for which bids will be called within from 60 to 90 days. Of the remainder, 87 will be done by the WPA and 15 will be by a combination of contract and WPA work. The work will be directed by Lt. Col. Lucius D. Clay, Corps of Engineers, who was detailed to the CAA last fall as assistant to Administrator Connolly to supervise CAA defense work on airports.

New Funds for Defense Work on Civil Airports

Project	Amount
Amarillo, Tex.	$ 134,000
Americus, Ga.	28,000
Amherst, Mass.	266,000
Arlington, Tex.	490,000
Asheville, N. C.	57,000
Athens, Ga.	210,000
Atlanta, Ga. (Candler Field)	213,000
Auburn, Ala. (Auburn-Opelika)	268,000
Auburn-Lewiston, Me.	54,000
Augusta, Me.	95,000
Bainbridge, Ga.	278,000
Bangor, Me. (Municipal #1)	125,000
Bangor, Me. (Mun. #2-Oldtown)	296,000
Bar Harbor, Me.	293,000
Barre-Montpelier, Vt.	53,000
Bartow, Fla.	217,000
Beaufort, S. C.	200,000
Bedford, Mass. (Boston Municipal #2)	290,000
Beeville, Tex.	198,000
Belfast, Me.	137,000
Bellingham, Wash.	59,000
Big Spring, Tex.	25,000
Billings, Mont.	137,000
Bishop, Calif.	322,000
Bismarck, N. D.	165,000
Blackstone, Va.	197,000
Bowling Green, Ky.	332,000
Bozeman, Mont.	193,000
Bridgeport, Conn.	190,000
Brownsville, Tex.	437,000
Brunswick, Ga.	207,000
Brunswick, Me.	90,000
Buffalo, N. Y.	204,000
Burlington, Vt.	64,670
Butte, Mont.	33,000
Casper, Wyo.	190,000
Cedar City, Utah	287,000
Chehalis, Wash.	523,000
Claremont, N. H.	87,000
Clarksdale, Miss.	275,000
Clewiston, Fla.	257,000
Clovis, N. M.	268,000
Cobb County, Ga.	70,000
Coeur d'Alene, Idaho	401,000
College Station, Tex.	75,000
Columbia, S. C. (Lexington County)	500,000
Columbus, Ga.	350,000
Concord, N. H.	379,000
Cordele, Ga.	200,000
Corpus Christi, Tex.	310,000
Coventry, Vt.	394,000
Cross City, Fla.	217,000
Crowley-Jennings, La.	370,000
Dansville, N. Y.	186,000
Deland, Fla.	96,000
Dodge City, Kan.	210,000
Dothan, Ala.	156,000
Douglas, Ariz.	360,000
Dover, Del.	123,000
Dover-Foxcroft, Me.	200,000
Dunnellon, Fla.	250,000
Eagle Pass, Tex.	45,000
East Hampton, N. Y.	372,000
El Centro, Calif.	300,000
El Dorado, Ark.	385,000
Elko, Nev.	100,000
Ellensburg, Wash.	321,000
Elmira, N. Y.	590,000
Ely-White Pine County, Nev.	365,000
Emporia, Va.	485,000
Enid, Okla.	320,000
Euphrata, Wash.	250,000
Eugene, Ore.	113,000
Eureka, Calif.	298,000
Farmingdale, N. Y.	490,000
Fitchburg, Mass.	170,000
Flint, Mich.	467,000
Foley, Ala.	25,000
Fort Kent, Me.	386,000
Ft. Lauderdale, Fla.	248,000
Fort Myers, Fla.	204,000
Ft. Pierce, Fla.	262,000
Franklin, Va.	225,000
Gadsen, Ala.	250,000
Gainesville, Fla.	169,000
Gainesville, Ga.	344,000
Galveston, Tex.	200,000
Gardner, Kan. (Johnson County)	110,000
Georgetown, Del.	160,000
Georgetown, Tex.	394,000
Gila Bend, Ariz.	146,000
Gilford, N. H. (Laconia)	30,000
Glens Falls, N. Y.	426,000
Gooding, Idaho	248,000
Goldsboro, N. C.	65,000
Grand Forks, N. D.	180,000
Grand Junction, Colo.	300,000
Great Falls, Mont.	36,000
Greenville, Me.	178,000
Greenville, S. C.	60,000
Greenville, Tex.	410,000
Greenwood, Miss.	235,000
Gulfport, Miss.	404,000
Hammond, La.	335,000
Hartford, Conn. (Brainerd Field)	65,000
Helena, Mont.	144,800
Helena-West Helena, Ark.	350,000
Hillsgrove, R. I. (Warwick-R. I. State)	46,000
Hobbs, N. M.	230,000
Houma, La.	380,000
Houston, Tex.	373,000
Hyannis, Mass.	190,000
Idaho Falls, Idaho	165,301
Independence, Calif. (Lone Pine)	233,000
Jackson, Mich. (Reynolds Field)	352,000
Jackson, Miss. (Municipal #2)	50,000
Jacksonville, Fla. (Municipal #1)	188,000
Jacksonville, Fla. (Municipal #2)	290,000
Johnstown, Pa.	400,000
Joplin, Mo.	300,000
Kalamazoo, Mich.	60,000
Keene, N. H.	446,000
Kerrville, Tex.	299,000
Key West, Fla.	195,000
Kingsville, Tex.	166,000
Kissimmee, Fla.	233,000
Kitsap County, Wash. (Bremerton)	234,000
Klamath Falls, Ore.	278,000
Lafayette, La.	375,000
La Grande, Ore.	105,000
La Junta, Colo.	84,000
Lake City, Fla.	162,000
Lakeland, Fla. (Municipal #2)	260,000
Lake Wales, Fla.	217,000
Laredo, Tex.	45,000
Las Vegas, N. M.	281,000
Laurel, Miss.	283,000
Lawrence, Mass.	272,000
Lessburg, Fla.	336,000
Lewiston, Mont.	167,000
Lexington, Ky.	235,000
Logan, Utah	360,000
Longview, Tex.	100,000
Louisville, Ky. (Municipal #2)	370,000
Lynchburg, Va.	192,000
McKean County, Pa. (Bradford-Kane)	560,000
Macon, Ga.	20,000
Madera, Calif.	312,000
Malone, N. Y.	413,000
Manteo, N. C.	404,000
Marathon Key, Fla.	234,000
Marfa, Tex.	218,000
Marianna, Fla.	254,000
Mathis, Tex.	178,000
Melbourne, Fla.	54,000
Memphis, Tenn.	73,000
Merced, Calif.	100,000
Miami, Fla. (Municipal #2)	260,000
Midland, Tex.	289,000
Miles City, Mont.	123,000
Millville, N. J. (Bridgeton Airport)	265,000
Mineral Wells, Tex.	78,000
Missoula, Mont.	70,000
Mobile, Ala.	260,000
Modesto, Calif.	161,000
Mojave, Calif.	205,000
Monroe, La.	388,000
Montgomery, Ala.	82,000
Morristown, N. J.	222,000
Nantucket, Mass.	274,000
Naples, Fla.	310,000
Natchitoches, La.	365,000
Needles, Calif.	270,000
Newark, N. J.	300,000
New Bern, N. C.	157,000
New Haven, Conn.	57,000
New Orleans, La. (Alvin Callander)	228,000
New Orleans, La. (Kenner Airport)	790,000
New York, N. Y. (Idlewild)	860,000
North Platte, Neb.	70,000
Norwood, Mass.	566,000
Ocala, Fla.	70,000
Ogden, Utah	301,000
Okeechobee, Fla.	282,000
Olympia, Wash.	100,000
Orangeburg, S. C.	308,000
Orlando, Fla. (Municipal #2)	309,000
Paducah, Ky.	430,000
Palatka, Fla.	227,000
Palestine, Tex.	363,000
Palm Springs, Calif.	300,000
Pascagoula, Miss. (Pascagoula #2)	232,000
Petersburg, Va.	593,000
Pittsburgh, Pa.	2,600,000
Pittsfield, Me.	100,000
Plattsburgh, N. Y.	386,000
Port Angeles, Wash.	22,000
Portersville, Calif.	280,000
Portland, Me.	153,000
Portsmouth, N. H.	478,000
Prescott, Ariz.	295,000
Princeton, Me.	97,000
Provo, Utah	325,000
Pueblo, Colo.	84,000
Raleigh-Durham, N. C.	300,000
Red Bluff, Calif.	196,000
Richmond, Va. (Richard E. Byrd)	646,000
Roanoke, Va.	180,000
Rochester, N. Y.	161,000
Rockland, Me.	112,000
Rock Spring, Wyo.	60,000
Rocky Mount, N. C.	185,000
Rutland, Vt.	422,000
Sacramento, Calif.	344,000
Safford, Ariz.	222,000
Saginaw-Bay City, Mich. (Tri-City)	527,000
St. Augustine, Fla.	173,000
St. Petersburg, Fla. (Pinellas)	386,000
Salisbury, Md.	380,000
Salt Lake City, Utah (Municipal #2)	230,000
San Bernardino, Calif.	213,000
Sanford, Fla.	215,000
Sanford, Me.	100,000
Santa Fe, N. M.	170,000
Santa Barbara, Calif.	385,000
Santa Rosa, Calif.	280,000
Saranac Lake, N. Y.	550,000
Sarasota-Manatee, Fla.	185,000
Savannah, Ga. (Municipal #2)	16,000
Schenectady, N. Y.	483,000
Seattle, Wash. (King County Airport)	78,000
Shawnee, Okla.	285,000
Sheridan, Wyo.	125,000
Silverlake, Calif.	146,000
Skowhegan, Me.	210,000
Socorro, N. M.	320,000
Somerset, Pa.	250,000
Spartanburg, S. C.	150,000
Spokane, Wash. (Felts Field)	194,000
Starkville, Miss.	290,000
Statesboro, Ga.	350,000
Sweetwater, Tex.	107,000
Tampa, Fla. (Hillsborough County)	283,000
Temple, Tex.	335,000
Texarkana, Ark.	429,000
The Dalles, Ore.	180,000
Thomasville, Ga.	250,000
Tillamook, Ore.	410,000
Topeka, Kans.	90,000
Tucson, Ariz.	223,000
Tucumcari, N. M.	302,000
Tulsa, Okla. (Municipal #1)	87,000
Tyler, Tex.	363,000
Ukiah, Calif.	180,000
Utica, N. Y.	166,000
Valle, Ariz.	25,000
Vernon, Tex.	270,000
Vero Beach, Fla.	191,000
Waco, Tex.	180,000
Walla Walla, Wash.	59,000
Walterboro, S. C.	322,000
Watertown, N. Y.	389,000
Waycross, Ga.	288,000
Wenatchee, Wash.	210,000
Westfield, Mass.	87,000
West Lebanon, N. H.	150,000
West Palm Beach, Fla. (Lantana-Municipal #2)	195,000
Whitefield, N. H.	403,000
Wilkes Barre, Pa. (Wilkes Barre-Scranton)	900,000
Williamsport, Pa.	100,000
Willimantic, Conn.	185,000
Willows, Calif.	110,000
Wilmington, Del.	523,000
Winfield-Arkansas City, Kans.	214,000
Winslow, Ariz.	30,000
Winter Haven, Fla.	188,000
Winterport, Me.	393,000
Yakima, Wash.	55,000
Yuba-Marysville, Calif.	180,000
Yuma, Ariz.	135,000
Zephyrhills, Fla.	234,000

MEN AT WORK

Progress on removing World War buildings at the old Port Terminal near North Charleston, S. C., for a new $4,500,000 quartermaster depot gets the attention of the engineers in charge. Left to right they are: J. D. LOCKWOOD, resident partner of the Coleman Engineering Co., New Orleans, architects; CAPT. HARRY L. FOX, constructing quartermaster; H. L. ROLAND, constructing engineer; H. S. GLENN, project manager for Daniel Construction Co., Anderson, S. C., and A. H. Guion Co., Charlotte, N. C., general contractors; and ROBERT V. McCALLEY, general superintendent for the two general contracting firms.

Big fellow at right above is ARTHUR WHITCOMB, general contractor of Keene, N. H. With his associate G. ALLEN MOTT (left) he is operating a fleet of power shovels which he hires out with operator at a flat daily rate. Whitcomb started business in 1931 with one shovel, and, he says, "I was proprietor, shovel operator and sole employee." Now Whitcomb has nine shovels.

Much of the construction plan design for the Tennessee Valley Authority's rush construction handled by TED APPEL (standing at left), ace designer, and RAY MARTIN (seated), who is responsible for general layout of plant.

North Carolina State highway engineers (above) do not often work with dredges but now they are using a dredge to build a road across Mattamuskeet Lake. The group shown are, left to right: H. D. IRVING, assistant division engineer at Greenville; J. J. GILBERT, resident engineer on work near Washington, N. C.; and C. Y. GRIFFIN, resident engineer on the lake project.

L. F. HARZA (left of two at right) of Harza Engineering Co. is explaining to his son DICK the fine points of porous slope paving on Santee Dam in North Carolina. Young Harza expects to become an engineering student this fall, hoping to follow in the footsteps of his illustrious father.

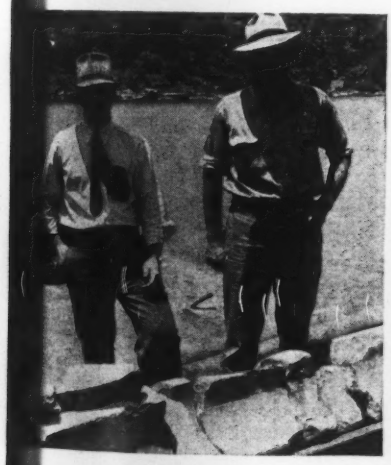
George M. Mathieu photo

SANDER SCHWARTZ, chief division engineer for the ew York State Transit Commission on the $23,800,000 tlantic Ave. grade-crossing elimination project in New rk City inspects a part of the subway construction work the Borough of Brooklyn.

Rush housing for defense is the story on Washington's new $8,500,000 Statler Hotel. HARRY A. ARMSTRONG (left above), superintendent for Spencer, White & Prentis, Inc., New York, is ready to start deep foundations as soon as WALTER Y. POTTS of Potts & Callahan Contracting Co., Inc., Baltimore, completes the general excavation. In Washington it is rumored that the hotel may be a government office building by spring.

WARD CHENEY looks on his work and finds it good, judging the smile. Cheney, consulting architect on the staff of the Buildings Administration, had charge of design of the al building and hangars for the recently completed Washn National Airport. Here is standing on the sightseeing ade of the terminal. Cheney has been with PBA since

Studying American practice, FIKRET BEBE (without hat at left), M.I.T. graduate student from Ankara, Turkey, finds a good counselor and a warm friend in Prof. THOMAS R. CAMP of that school. Bebe is in this country on a fellowship from the Turkish beet sugar industries; he is specializing in hydraulic and irrigation work.



Core drilling as a profession seems to be the aim of L. A. SCHMIDT, JR. (at left), engineer in charge, and H. D. TOWERS, superintendent, on remedial work at TVA's Hales Bar Dam. They are drilling a total of 40,000 lin. ft. of 18-in. diameter holes, cores from which are at bottom of picture.

BEN E. TORPEN (right), consulting engineer in the U. S. Engineer Dept., is seen down in the pit excavated for the addition of four new generating units in the Bonneville powerhouse on the Columbia River. Torpen has had extensive experience in dam and powerhouse work in the Northwest and now is supervising this difficult Bonneville job.

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George M. Mathieu photo

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MEN AND JOBS

John C. Douglass, of Fort Worth, has been appointed Texas state director of Federal Works Reserve Projects. In his new job Mr. Douglass will scout the state for feasible federal projects, which will be investigated and catalogued for possible indorsement when post-defense unemployment makes it necessary that new jobs be created. He was formerly assistant director of operations of WPA, a post now filled by **S. D. Steed**, former planning engineer with the WPA. Mr. Steed's job is filled by **Joe H. Cunningham**, also of WPA.

Ted C. Mikesell, instrumentman and engineering draftsman in the road office of the Wyoming state highway department at Cheyenne since 1925, has accepted a civil service position as senior engineer draftsman with the U. S. Army Engineers at Honolulu, T.H. Mr. Mikesell sailed from San Francisco July 9.

Russell R. Smith, former deputy engineer for Erie County, Ohio, has been appointed city engineer at Sandusky. **J. B. McConnell**, former service director of Steubenville, Ohio, has been appointed assistant city engineer. Mr. Smith heads an entire new engineering staff, the city's former staff having resigned June 1 as a protest against the dismissal of **E. E. Hartung.**

R. G. Rowan is now a member of the Montreal staff of the Bell Telephone Co. of Canada. He graduated in civil engineering from Queen's University last year.

William W. Maddy, of Nashville, Tenn., former principal engineer under Maj. O. E. Walsh in the U. S. Engineer office at Nashville, has been named temporary chief engineer for the district office in Norfolk, Va., to serve under **Maj. Robert R. Neyland**, former University of Tennessee football coach and now district engineer in Norfolk.

W. E. Seely is now junior engineer at Montreal with the Canadian Department of National Defense (Air Force). He is a graduate in civil engineering from the University of New Brunswick.

D. C. Campbell is now an assistant engineer with the Civil Aviation Branch of the Department of Transport at St. John, N. B. He is a graduate in civil engineering from the University of New Brunswick.

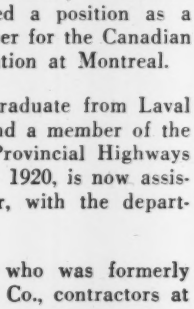
Hew M. Scott, C.E., formerly of Toronto, where he was engaged in the contracting business, has been located in Montreal for the last few months and is on the staff of Allied War Supplies Corp.

Julius Irion of Phoenix, Ariz., has been appointed assistant Maricopa County highway engineer. He will assist **Ralph A. Macdonald**, engineer, in the general supervision of county highway operations and road construction.

George Graham, a 1933 graduate in civil engineering, University of Saskatchewan, has accepted a position as a fire protection engineer for the Canadian Underwriters Association at Montreal.

C. E. Courchesne, graduate from Laval University in 1912 and a member of the Department of the Provincial Highways at Quebec City since 1920, is now assistant district engineer, with the department.

Robert F. McCune, who was formerly with the C. F. Lytle Co., contractors at Sioux City, Iowa, in charge of construction of the outlet works at the Denison Dam project, and who was later general superintendent of construction at Fort Leonard Wood, Mo., is now with the W. E. Callahan Construction Co., of Dallas, Tex. He is acting as general superintendent on the Southwestern Proving Grounds to be built for the Army Ordnance Department near Hope, Ark.



R. F. McCUNE

G. Lajoie is now with Arthur Surveyer & Co., consulting engineers in charge of the construction of intercepting sewer systems for the city of Quebec. He is a graduate from the Ecole Polytechnique in 1937.

The following changes in the engineering staff of the Arkansas state highway department have been announced by State Highway Director W. W. Mitchell: **R. A. Campbell**, Little Rock, has been made district engineer at Russellville, succeeding **Cone Murphy**; **M. C. Methvin**, present district engineer at Hope, succeeds **F. A. Gerig** as state maintenance supervisor; **J. E. Proctor** of Wynne becomes assistant maintenance supervisor of District No. 1; **Kent Brown** of Fort Smith is district engineer at Hope, succeeding M. C. Methvin; **James Hamilton** of Wynne has been made junior highway engineer, succeeding **J. P. Rowan** of Wynne; **[illegible] G. Patrick** of Helena is superintendent of [illegible] maintenance work; **George T Foster** of Bentonville succeeds **W. A. Stanton** of Little Rock in taking charge of cooperative projects.

W. C. Peterson, for the past several years associate engineer with the Public Roads Administration of Fort Worth, Tex., has been appointed district maintenance engineer for District No. 6 of that agency. Mr. Peterson's headquarters will remain at Fort Worth.

Ed Bluestein, formerly assistant district engineer for the Texas state highway department, District No. 17, with headquarters at Bryan, Tex., and since June 10 acting district engineer, on July 1 assumed the position of district engineer, District 19, with headquarters at Atlanta. Mr. Bluestein, who graduated from the University of Texas in 1929, has served as assistant division engineer in the highway department at Bryan since September, 1932. **George M. Garrett**, district engineer, District No. 5 of the Texas state highway department with headquarters at Lubbock, Tex., on July 1, 1941, assumed the position of district engineer for District No. 17 at Bryan, Tex. Mr. Garrett is a civil engineering graduate of Texas A. & M. College in the class of 1924. He served as resident engineer in Runnels, Concho and Menard counties, and became division engineer at Lubbock on March 1, 1935.

S. C. McCarty, former district engineer for District No. 19, on July 1 assumed the position of district engineer for District No. 5 at Lubbock, Tex. Mr. McCarty is a civil engineering graduate of Texas A. & M. College in the class of 1915. After his foreign service in the 315th Engineers he returned and was employed as resident engineer for the state highway department at Del Rio, Tex. Since that time he has served almost continuously with the highway department and counties on highway work, having been in Atlanta since 1934.

Zay Johnson, formerly with the Texas state highway department in the Waco district and more recently associated with the Southwest Stone Co., has resigned from that company to re-enter the employment of the state highway department at Yoakum, Tex.

Fred Reichert, who succeeded Russell White as engineer of Bexar County, Tex., has resigned to enter the Army.

Leslie A. Pettus, formerly city engineer of St. Louis, has been employed to supervise an important phase of the construction of a $15,000,000 airport depot at Oklahoma City.

WASHINGTON HIGHLIGHTS

DESPITE THE FACT that labor troubles on four or five defense projects were given considerable publicity over the week end, the new agreement between federal officials and the Building and Construction Trades Department of the American Federation of Labor, to outlaw strikes on defense jobs (*ENR* July 31, 1941, p. 139) is considered to be working satisfactorily. Most of the trouble in making the new agreement effective arose because of the short notice given to local unions before the action became effective.

FEDERAL WORKS ADMINISTRATOR John M. Carmody, Aug. 4, announced presidential approval of an additional allotment totaling $822,100 from savings and recisions from PWA program funds of former years to the Civil Aeronautics Administration for the completion of the Washington National Airport. In a report recommending the grant of additional PWA funds Fred E. Schnepfe, Chairman of the Interdepartmental Engineering Commission who supervised the airport design and construction pointed out that though the construction completed to date has given the city of Washington a usable port, additional work is necessary to complete field, terminal and hangar buildings and to permit a larger enjoyment of the air terminal by the non-flying public. Work under this allotment will include completion of taxi strips, grading and sidewalks.

ALTHOUGH INCREASING EXCAVATION costs roughly $1,700,000 the new Gatun locks for the Panama Canal are to be built 850 ft. nearer Gatun Lake than originally planned according to Brig. Gen. Glen E. Edgerton, Governor of the Panama Canal Zone. Excavation work for the project is now expected to cost about $10,200,000, but the increase due to the change is considered offset in part by a saving on masonry and other work.

BRIEF NEWS

FEDERAL FLOOD CONTROL work in Pennsylvania will be facilitated by two bills signed by Governor Arthur H. James on July 25, which empower the state water and power resources board to grant easements and flowage rights to the federal government, and authorize the Pennsylvania department of highways to grant and convey certain rights, easements and lands over which the state government has control bordering flood control projects, to U. S. agencies engaged in control work.

GEORGE F. GANT, acting director of personnel of TVA, announces that 343 TVA employees have been called to military duty during the past year. Reserves called up under the act of last Aug. 27, and selectees or volunteers under the Selective Training and Service Act have been given leave of absence, except in cases where they were employed in temporary positions by the Authority.

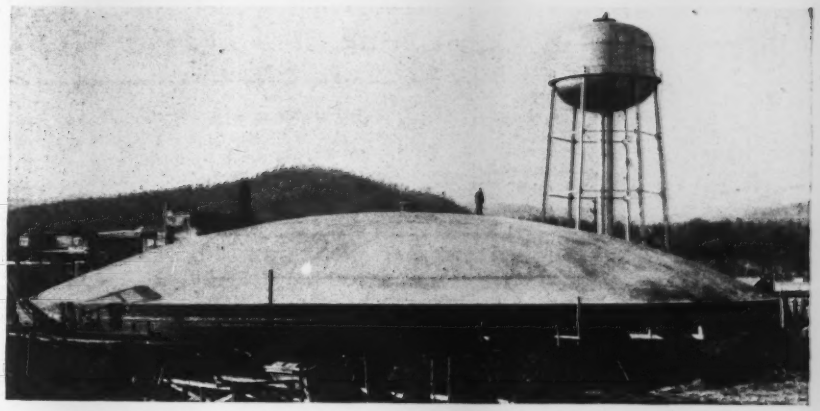
The Army has taken 123 reserve officers from the Authority's personnel including a lieutenant-colonel, five majors and 22 captains. Seven employees were called by the Navy, fifteen by the National Guard, and two by the Marine Corps.

THE FIRST STEP in the development of a public housing program in Alaska was taken in a bill which the President signed last week. The bill authorizes the Alaska legislature to create a territorial housing authority which can participate in the USHA program on an equal basis with the other territories and all the states. The bill especially authorizes construction of accommodations for persons and their families engaged in national-defense activities.

LARGEST SINGLE lot of aluminum made available in the current drive for the defense metal was turned into defense channels by the Hotel Statler Co. of New York. The aluminum, some 54,000 pounds, which was to have gone into the windows of the new Hotel Statler at Washington, D. C., now under construction, had been purchased before the present acute shortage made rigid priorities necessary.

BECAUSE it was unsigned the low bid of $64,848 submitted by Johnston & Kramer, St. Charles, Minn., for the construction of the new municipal building at Eau Claire, Wis., was ruled an illegal bid by the city's corporation counsel. Of four bids submitted, that of Hoeppner-Bartlett Co., of Eau Claire, was next low. It was only $10 more than the bid of the St. Charles firm.

THE NUMBER OF USHA low-rent projects completed or under construction has now passed the 400 mark, according to Administrator Nathan Straus. More than a third of a million people are now living in the low-rent projects built under USHA or the former PWA Housing Division. At the conclusion of the present low-rent housing, slum clearance program, 750,000 people will be housed in USHA projects.



Thin domes for reinforced-concrete reservoirs

As part of a $2,000,000 expansion at Pisgah Forest, N. C., the Ecusta Paper Corp. recently completed two unusual 1,500,000-gal. water storage reservoirs of the type shown in foreground above. The tanks have an inside diameter of 155 ft. The domes were built with pneumatically applied mortar and they have a rise of one-eighth the inside diameter. They are 4 in. thick at the lower edges and 2 in. at the center. These thin domes are believed to be the largest in the world of their particular type.

The side walls are 11 ft. high and taper in thickness from 4 in. at the top to 9 in. at the bottom. These sidewalls were constructed by first building an inner wall by ordinary methods; outside this inner wall reinforcing bands, which were pre-loaded by means of turnbuckles, were next installed. Then, adding an outside layer of sprayed mortar completed the operations. Concrete with a minimum compressive strength of 5,000 psi. was used for the pneumatic work.

J. E. Sirrine Co., Greenville, S. C., represented on the job by George Wrigley, Jr., was engineer for the expansion program. J. M. Crom of the Preload Co., Long Island City, N. Y., designed the two tanks and Frank J. Bertie of the same firm supervised their construction.

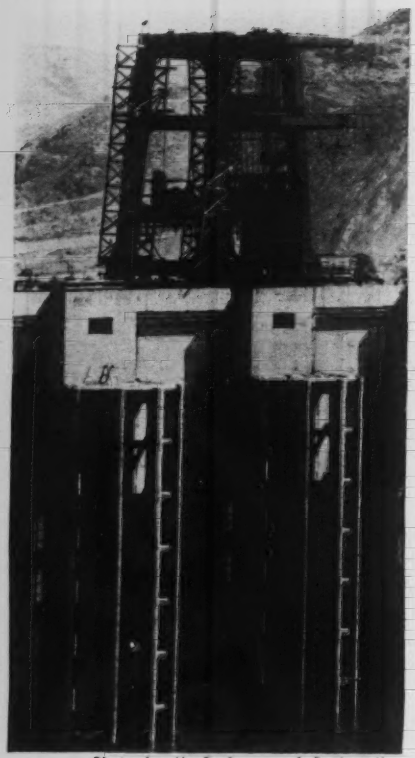


Photo by U. S. Bureau of Reclamation

Big gantry crane handles 115 tons at Grand Coulee

Lowering a 115-ton section of a coaster gate to the upstream portal of a penstock at Grand Coulee Dam. Though incomplete the crane is being used to handle heavy gates and other apparatus. It is 66 ft. high and has a capacity of 150 tons. The crane, when complete, will become a permanent fixture.

Kingsley Dam dedicated after six years work

Kingsley Dam, a hydraulic fill project, on the North Platte River near Ogallala, Nebr., was officially dedicated on July 22. The dam was built for irrigation purposes by the Central Nebraska Power & Irrigation District, of which George E. Johnson is chief engineer and general manager, and George N. Carter resident engineer at the dam. At the bottom, the dam is 7,500 ft. in length, and at the top, 10,700 ft., with a base width of 1,140 ft., top width 30 ft., and height 163 ft. About 26,000,000 cu.yd. of hydraulic fill was required. A 2,000,000 acre-ft. basin was created in the North Platte River Valley, and the water will be fed through about 600 miles of canals to irrigate some 220,000 acres. Nearly 731,000,000 kw.hr. of energy will be distributed annually from the project.

The Minneapolis Dredging Co.-Martin Wunderlich Co., George P. Leonard, general superintendent, were the contractors.

JOBS OF THE WEEK

ORDNANCE PLANT, Texarkana, Tex.
Winston Brothers, and C. F. Haglin Sons Co., Minneapolis, Minn., Missouri Valley Bridge & Iron Co., Leavenworth, Kan. and Sollitt Construction Co., South Bend, Ind., have received a contract for construction of an ordnance plant on 24,300 acres from the Lone Star Defense Corp., c/o B. F. Goodrich Co., Akron, O. Estimated cost $35,000,000. Chester Engineers and Prack & Prack, Pittsburgh, engineers.

BARRIER DAM, Cincinnati, O.
Spencer, White & Prentis, New York, N. Y., was lowest bidder for constructing Mill Creek Valley barrier dam, when U. S. Engineers, Cincinnati, O., opened bids July 29. The low bid was $2,793,814.

CHEMICAL WARFARE SERVICE ARSENAL, Huntersville, Ala.
C. G. Kershaw Contracting Co., Birmingham, Ala., has been awarded contract for constructing chemical warfare service arsenal, including eleven manufacturing plants, four chemical loading plants, depot, plant storage, laboratory, shops, offices, hospital, fire and guard equipment and utilities. The War Department, Washington, D. C., awarded contract at $29,000,000. Whitman, Requardt & Smith, Baltimore, Md., are architects and engineers.

HOSPITAL, Long Beach, Calif.
R. E. Campbell, Compton, Calif., will build Naval Hospital including eleven permanent buildings and services for Bureau of Yards & Docks, Washington, D. C., $2,250,000. Claude Beelman, Los Angeles, Calif., is architect.

ANHYDROUS AMMONIA PLANT, Sterlington, La.
M. W. Kellogg Co., New York, N. Y., has been awarded contract for anhydrous ammonia plant near here for War Department, Washington, D. C., by Commercial Solvents Co., New York. Estimated cost is $16,750,000.

TWIN CITIES ORDNANCE PLANT, St. Paul, Minn.
Federal Cartridge Corp., Minneapolis, Minn., has been awarded a contract by the War Department, to construct, equip and operate the Twin Cities Ordnance Plant. The total contract is $86,058,331. Estimated cost for construction is $30,000,000.

DIRIGIBLE BASE, Elizabeth City, N. C.
J. A. Jones Construction Co., Charlotte, N. C., has been awarded contract for constructing lighter than air dirigible base at estimated cost $6,500,000, by Navy Department, Wash., D. C.

FLOOD PROTECTION WORK, Ind.
Robert R. Anderson Co., Chicago, Ill., was lowest bidder for constructing flood protection works East Section, Unit, 1 Jefferson, Clark Co., Ind. for U. S. Engineers, Louisville, Ky., $1,202,595.

FLOOD WALL, Portsmouth, O.
Minneapolis Dredging Co., Minneapolis, Minn., was lowest bidder constructing Portsmouth-New Boston flood wall when U.S. Engineers, Cincinnati, took bids July 29. The lowest bid was $1,115,404.

DEFENSE HOUSING, Chester, Pa.
Public Buildings Administration, Washington, D. C., received lowest bid from Anthony P. Miller and Anthony P. Miller, Inc., Atlantic City, N. J., for 300 defense housing units. The bid was $2,259,000. The project is to house industrial workers in the Chester area.

PLANT ADDITION, Hamden, Conn.
Dwight Building Co., New Haven, Conn., has been awarded contract by the High Standard Manufacturing Inc., for plant addition, Dixwell Ave. Cost will be $4,300,000 with equipment. Douglas Orr, New Haven, is engineer. Company will manufacture machine guns. Defense Plant Corp. will finance.

GENERATING PLANT, North Carolina
Gibbs & Hill, Harrisburg, Pa., will construct steam generating plant, 15 mi. from New Bern, on Neuse River, to supply electricity for Marine barracks, in Onslow County and Marine Air Barracks in Craven Co. The estimated cost is $1,200,000. Jones-Onslow Electric Membership Cooperative, Jacksonville, is owner.

PIPE LINE, Michigan, Kansas and Texas
Panhandle Eastern Pipe Line Co., Dallas, Tex., has awarded contract for furnishing pipe for 405 mi. natural gas line between Michigan, Kansas and Texas to A. O. Smith Corp., Milwaukee, $4,633,000.

MARINE AVIATION BASE, Cherrypoint, N. C.
T. A. Loving Co. & Associates, Goldsboro, N. C., have been awarded contract for constructing marine aviation base, at estimated cost $14,145,000, by Navy Department, Wash., D. C. J. E. Greiner Co., Baltimore, Md., has contract for engineering work on project.

NOTE—Additional bidding and contract news on over 800 projects large and small appear in the Construction News section beginning on page 16.

Bids for San Vicente Dam will be called this month

Plans and specifications have been approved by the city of San Diego, Cal., for construction of San Vicente dam, about 25 miles northeast of San Diego, to augment the city's water supply. Last week the city council authorized a call for bids to be opened Aug. 26 for construction of the dam. It is expected that bids for furnishing cement, valves, outlet pipe and appurtenances will be opened on the same date. San Vicente dam will be of concrete gravity section type, straight in plan, with 275 ft. ogee spillway without gates over the central portion. The structure will store water to a depth of 190 ft. above stream bed and will be nearly 950 ft. long.

About 85,000 cu.yd. of excavation and 300,000 cu.yd. of concrete will be required. The specifications call for precooling of coarse aggregates by sprinkling, and water for concrete must be cooled to a temperature below 45 deg. Lifts of concrete are limited to 5 ft. pours with a minimum of 90 hours between pours. No pipe cooling system will be required.

Extensive highway relocation

The project includes the location and construction of a new highway by the state division of highways to take the place of the road now passing through the reservoir basin, and this work is estimated to cost $350,000. Estimated cost of clearing the reservoir basin has been placed at $30,000, and cost of the dam will be $2,745,000. Another $425,000 covers 4.6 miles of 48 in. pipe line, engineering and contingencies.

Julian Hinds is consulting engineer for the city, Fred D. Pyle is hydraulic engineer in charge of the city's water development and conservation work and Charles P. Williams will be resident engineer on the job.

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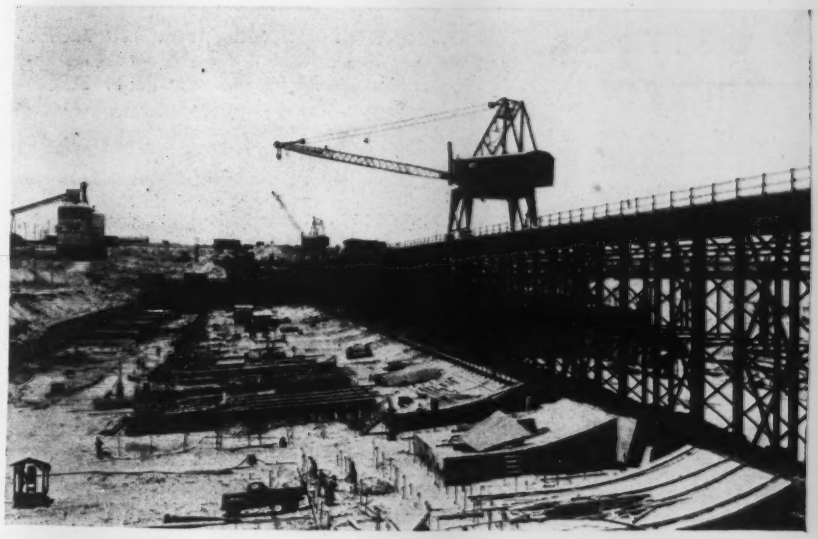


Rapid progress being made on John Martin Dam

John Martin Dam, formerly known as the Caddoa Dam, on the Arkansas River in southeastern Colorado, is one of the principal projects in the extensive flood control and stream regulation work undertaken by the U. S. Corps of Engineers in the Great Plains area. (ENR —Nov. 7, 1940, Vol. P. 614) The dam, located on the main river 58 mi. west of the Kansas line, will assure the fertility of the rich, irrigated valley now dependent upon a highly erratic stream flow. Devastating floods such as occurred in 1921, will be tamed to a maximum of 10,000 cfs (bank capacity) below the dam.

The project consists of a concrete overflow section in the river channel, a rolled-fill embankment across the flood plain, and two long earth wing dams. Maximum height is 130 ft. above flood plain; the overall length is 14,000 ft. Progress on the project reached 40 percent completion this month. Relocation of approximately 20 miles of the main line of the A.T.&S.F. Railway has been completed, and construction operations on the dam are progressing according to schedule. The earth section of the dam, consisting of 3,720,000 cu.yd. of pervious and 1,810,000 cu.yd. of impervious material, is nearly 25 percent complete.

Concrete placing operations on the concrete section of the dam were started the latter part of March, and on July 19, about 110,000 cu.yd. had been placed. The dam consists of an ogee overflow section 1,174 ft. long, surmounted by 16 tainter gates 30x64 ft., and flanked by a non-overflow section 235 ft. long at each end. The tainter gates will be of all-welded construction, the first of this type of fabrication. Concrete training walls define the spillway area at the sides, and extending 183 ft. downstream from the toe of the spillway is a concrete-paved stilling basin containing two rows of concrete baffle blocks. Progress on the stilling basin work is illustrated above.

Completion of the railway relocation project was carried out by the Western Contracting Corp. of Sioux City, Iowa, under a $1,000,000 contract. W. E. Callahan Construction Co., Gunther & Shirley Co., and Rohl-Connolly Co., Los Angeles, hold the contract for the $7,160,754 project.

Expansion of U. S. Engineer Corps reaches new high

In common with all elements of the Army, the Corps of Engineers has undergone a tremendous expansion program. During the past year the Corps was increased from 800 officers and 7,000 enlisted men to 4,200 officers and 61,000 men. The rate of expansion has been almost twice the average rate for the army as a whole. For the present army of more than 1,400,000 officers and men, almost 3,000 of the 8,000 engineer reserve officers available have been called to duty.

For the supervision of large civil construction establishments the United States is divided into 51 districts and 11 divisions, with engineer officers in charge. This organization has today more than a billion dollars' worth of construction work on its books, most of which is for national defense construction.

The national defense construction program includes about 100 projects for the Air Corps; all Army construction in our Atlantic island bases; all seacoast fortification work, and miscellaneous projects for other departments.

In the World War the Engineers Corps was expanded from 256 officers and 2,200 men to a force of 11,175 officers and about 285,000 men. This included National Guard and National Army troops. At present, therefore, despite great expansion, the Corps is only from one-quarter to one-third as large as it was in 1918.

Gold recovery at Friant dam reaches $94,520 mark

Gold recovered from the sand, gravel and rock being excavated for use as aggregate in the concrete for Friant Dam, in the U. S. Bureau of Reclamation's Central Valley, Cal., project, has now reached the total sum of $94,520, according to an announcement by Commissioner John C. Page. Recovery averages nearly $10,000 a month. Expenses involved in recovering the gold were $13,534, including the cost of constructing the plant for extraction. Gold separation operations were begun in August of last year.

The contractor on Friant Dam retains 50 percent of the net gold proceeds.

OBITUARY

JAMES S. GRANT, 89, chief engineer of the Spokane, Wash., city water department from the time it was formed until his retirement four years ago, died July 26 at Seattle. He had served the water department for 25 years.

JACOB LAUER BAUM, 56, senior designer in the bridge division of the Pennsylvania Department of Highways, died July 28 at Wormleysburg, Pa.

JOHN VAN WAKEMAN, civil engineer for the city of Chicago, died July 20.

JOHN HARVEY ROBINSON, former district engineer in the Pennsylvania Department of Highways at Newcastle, died July 31 at Oteen, N. C. He was a graduate of Pennsylvania State College in the class of 1911. Mr. Robinson served overseas in the World War with the 80th Division, and was cited for bravery in action in the Meuse-Argonne offensive.

COITE E. RHYNE, for 22 years superintendent of the Gastonia, N. C., municipal water and light department, died in Charlotte, N. C., July 25.

PERCY HOLBOOK, 71, former railroad construction engineer, died July 29 at New York, N. Y.

JOHN H. POPE, retired structural engineer, died July 6 at Philadelphia, Pa.

NORTON WARE, 61, chief engineer for the Sutter Butte Canal Co. for 20 years, died July 29 at Gridley, Cal. Mr. Ware was a captain in the U. S. Army Engineers and served in France during the World War. He was a bridge and mining engineer, and a graduate of the University of Nebraska.

JAMES W. REAGAN, prominent southern California civil engineer, was killed in an automobile crash July 26 at Long Beach, Cal. Although in retirement at the time of his death, Mr. Reagan had served as chief engineer of the Los Angeles county flood control district for eleven years following its organization in 1915. His first major engineering activity was the construction of the aqueduct and water distribution system for Capetown, South Africa, during the Boer War. Mr. Reagan was superintendent of construction for 15 years on the Southern Pacific lines in Mexico, and had a part in the construction of the Denver and Rio Grande Railway through the Royal Gorge and Canadian Rockies. He was 77 years old.

DAVID H. COLEMAN, for many years one of the leading levee and drainage contractors in the South, died last week at Memphis, Tenn. At the time of his death he was president of Horton & Coleman. Previously, he had been general superintendent of the T. T. Sweet Company, dredging contractors of Miami, Fla., and one time vice president of the Valley Construction Co. of Louisiana.

JOSEPH SMITH, retired bridge and building foreman for the Northwestern Railroad at Milwaukee, Wis., died July 30 at Waukegan, Ill. He was 75 years old.

ALBERT THALHEIMER, 65, former president of the Selma, Ala., water commission, died last month at Boston, Mass.

FREDERICH EICHBERG, 65, engineer, died July 30 at Ann Arbor, Mich.

MICHAEL J. GIBBONS, 53, engineer, died July 28 at Chestnut Hill, Pa.

CONTRACTS AND CAPITAL

ENGINEERING CONSTRUCTION awards, with defense contracts, particularly public buildings, showing the way, total $233,581,000 for the week. This is the third highest weekly volume ever reported by *ENR*, and is 206 percent greater than in the corresponding 1940 week, and 35 percent above a week ago.

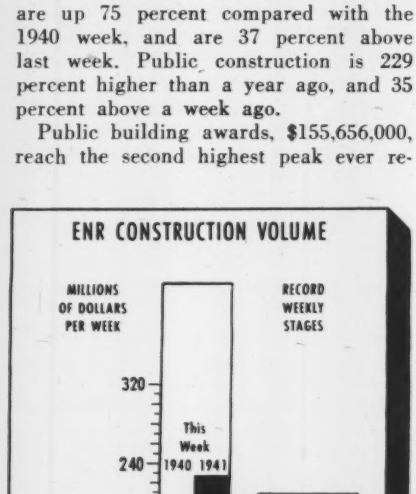
The week's awards bring 1941 construction to $4,033,647,000 for the 32-week period. This total exceeds the $3,987,243,000 reported for the 52 weeks of 1940, the former record volume. Private awards, $841,242,000, are 45 percent higher than in the 32 weeks a year ago, and public construction, $3,192,405,000, is 141 percent over last year as a result of the 419 percent increase in federal work.

Private awards for the current week are up 75 percent compared with the 1940 week, and are 37 percent above last week. Public construction is 229 percent higher than a year ago, and 35 percent above a week ago.

Public building awards, $155,656,000, reach the second highest peak ever recorded due to five large defense awards—four for defense plants in Alabama, Louisiana, Texas, and Minnesota, $110,750,000; and an army cantonment project in Missouri, $23,000,000.

New capital for construction purposes for the week totals $343,350,000, a 104 percent increase over last year. The week's new financing is made up of $330,200,000 in WPA funds for construction, $6,850,000 in RFC loans for private industrial expansion, $6,095,000 in state and municipal bond sales, and $205,000 in corporate security issues.

New construction financing for the year to date, $5,350,625,000 is up 183 percent compared with the 32-week total a year ago.



CONTRACTS

(Thousands of dollars)

	Week Ending Aug. 8 1940	July 31 1941	Aug. 7 1941
Federal	$40,558	$126,855	$196,803
State & Municipal	24,213	31,272	16,296
Total public...	$64,771	$158,127	$213,099
Total private..	11,682	14,967	20,482
TOTALS	$76,453	$173,094	$233,581
Cumulative 1941.....(32 weeks).....			$4,033,647
1940.....(32 weeks).....			$3,903,523

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1940 32 weeks	1941 32 weeks
NON-FEDERAL	$1,080,321	$953,026
Corp. Securities	124,501	281,775
State & Mun.	551,143	310,130
U.S.H.A. loans	104,728	30,389
R.F.C. loans	115,949	67,232
R.E.A. loans	.....	100,500
Federal Aid—Hwy.	184,000	163,000
FEDERAL	$808,572	$4,397,589
TOTAL CAPITAL	$1,888,893	$5,350,625

FHA MORTGAGES

	Week Ending Aug. 3 1940	July 26 1941	Aug. 2 1941
Selected for appraisal	$25,110	$30,509	$23,349*
Cumulative 1941.....(31 weeks).....			$897,812*
1940.....(31 weeks).....			$764,448

* Subject to revision.

ENR INDEX NUMBERS

Index Base=100		1913	1926
Construction Cost	Aug. '41	260.41	125.18
Building Cost	Aug. '41	212.45	114.84
Volume	July '41	635	278

CONTRACT UNIT PRICES

What contractors are bidding on different kinds of construction work

ARSENAL WHARF
BENICIA, CALIFORNIA

OWNER: U. S. Engineer Office, San Francisco, Calif.

PROJECT: Construction of reinforced concrete wharf located in Carquinez Straits at Benicia Arsenal, Benicia, Calif. Also involves construction of reinforced roadway approach on concrete piles, railway trestle approaches, roadway approach fill, structural steel warehouse, complete with roofing, siding, steel rolling doors, steel sash, doors, office and toilet partitions, plumbing, electrical installation, and finish painting.

CONDITIONS: Contractor to furnish all materials and complete work in 270 working days. Highway and water transportation facilities available. Wage rates specified are: skilled labor, $1.10 to $1.75 per hr.; semi-skilled, 70c. to $1.25; and common labor, 75 to 90c.

BIDS: Five bids were opened June 2, 1941, ranging from the contract low of $631,238 to $704,286.

LIST OF BIDDERS:

1. Robert E. McKee, Los Angeles, Calif. (contract) ... $631,238
2. A. Soda & Son, Oakland, Calif. ... 647,715
3. Heafey-Moore, Frederickson & Watson, Oakland, Calif. 654,213
4. Tavares Constr. Co., Los Angeles, Calif. ... 677,700
5. H. Mayson, Los Angeles, Calif. ... 704,286

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Reinforcing steel	497,000 lb.	$0.052	$0.05	$0.052
2. Concrete	2,825 c. y.	21.00	29.00	27.00
3. Furn. 20-in. precast conc. piles	86,000 l. f.	2.84	2.50	2.90
4. Furn. 18-in. precast conc. piles	5,000 l. f.	2.54	2.20	2.80
5. Drive conc. vertical piles	1,112 ea.	75.00	70.00	80.00
6. Drive conc. batter piles	57 ea.	80.00	75.00	90.00
7. Underdeck waterproofing	55,000 s. f.	.055	.10	.04
8. Structural steel	115,000 lb.	.115	.11	.12
9. Roofing and siding (Alt. 1)	16,600 s. f.	.43	.70	.50
10. Roofing and siding (Alt. 2)	16,600 s. f.	.54	.65	.50
11. Steel sash	L. S.	375.00	750.00	425.00
12. Steel rolling doors	L. S.	4,200.00	4,900.00	4,700.00
13. Steel partitions	L. S.	1,450.00	1,450.00	1,350.00
14. Fire protec. sys. and plumbing equip.	L. S.	22,800.00	25,000.00	15,000.00
15. Electrical equipment	L. S.	11,300.00	12,500.00	11,500.00
16. Mooring bitts	4 ea.	140.00	150.00	133.00
17. Mooring cleats	6 ea.	68.00	70.00	80.00
18. Hardware	69,000 lb.	.15	.25	.14
19. Miscellaneous steel	33,000 lb.	.25	.25	.28
20. Platform hoist	L. S.	8,034.00	7,000.00	8,500.00
21. Asphalt surfacing	57,000 s. f.	.12	.19	.10
22. Finish painting	L. S.	2,000.00	2,000.00	2,400.00
23. Furn. treated timber piles	21,000 l. f.	1.31	1.10	1.30
24. Drive treated timber piles	316 ea.	33.00	40.00	28.00
25. Furn. eucalyptus piles	11,000 l. f.	.50	.55	.58
26. Drive eucalyptus piles	150 ea.	20.00	40.00	28.00
27. Floating log	475 l. f.	.65	1.00	1.20
28. Treated timber	51 M bm.	132.00	160.00	160.00
29. Untreated timber	170 M bm.	85.00	100.00	79.00
30. Railway trackwork	L. S.	13,650.00	15,000.00	13,900.00
31. Fill	14,000 c. y.	.50	1.00	.54
32. Riprap	2,300 ton	4.20	6.00	3.40
33. Asph. conc. road pavement	9,600 s. f.	.31	.10	.24

HIGHWAY OVERPASS, VERMONT

OWNER: Vermont State Highway Department, Montpelier.

PROJECT: Construction of an 889.5-ft. highway overpass. Consists of nine spans, one a wide flange beam girder and the balance a combination of cantilever and continuous girders. Two lane roadway. Located on U. S. Route 2, St. Johnsbury, Vt.

CONDITIONS: Contractor to furnish all materials and complete work by August 1, 1942. Rail and highway transportation facilities available. Project is in heavily settled area, and changes to public and private utilities affect construction. There may also be difficulty in obtaining structural steel. Wage rates: skilled labor, 60c. per hr.; semi-skilled, 45c.; common, 40c.

BIDS: Six bids were opened June 13, 1941, ranging from the contract low of $289,760 to $328,389.

LIST OF BIDDERS:

1. Charles I. Hosmer, Inc., Greenfield, Mass. (contract) $289,760
2. O. W. Miller Co., Inc., Ludlow, Mass. ... 293,725
3. Carlo Bianchi & Co., Framingham, Mass. ... 309,084
4. Derrick DeGroot, Jericho, Vt. ... 315,399
5. The Lane Constr. Co., Meriden, Conn. ... 321,462
6. B. A. Simeone, Inc., Medford, Mass. ... 328,389

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Solid rock excavation	80 c. y.	$3.00	$4.00	$4.00
2. Common excav., incl. borrow	6,500 c. y.	.60	.45	.60
3. Trench excavation, earth	830 c. y.	1.00	2.00	1.25
4. Trench excavation, rock	270 c. y.	5.00	5.00	4.00
5. Structure excavation	2,353 c. y.	4.00	3.00	6.00
6. Maintain traffic (F. tr. only)	L.S.	500.00	2,000.00	1,000.00
7. Maintain traffic (local tr. only)	L.S.	1,000.00	1,100.00	500.00
8. Sub-base of gravel	1,900 c. y.	.60	.60	.75
9. Cr. gravel, mixed-in-place surf. crse.	180 c. y.	5.50	6.00	5.00
10. Double tack coat of refined tar	150 gal.	.14	.20	.50
11. Refined tar	4,300 gal.	.14	.15	.16
12. Cement concrete pavement	480 c. y.	14.00	17.00	12.00
13. Class A concrete	2,642 c. y.	23.00	22.50	24.00
14. Reinforcing steel	307,300 lb.	.05	.055	.048
15. Steel superstr. (1,820,200 lb.)	L.S.	177,965.00	178,500.00	190,000.00
16. Cement rubble masonry	140 c. y.	10.00	15.00	15.00
17. 12-in. rein. conc. pipe	140 l. f.	1.50	1.65	1.50
18. 24-in. rein. conc. pipe	64 l. f.	3.25	4.00	4.00
19. 12-in. corr. galv. metal pipe	338 l. f.	1.50	2.00	1.75
20. 12-in. corr. galv. pipe, metal, asph. coated	196 l. f.	1.75	2.00	2.00
21. 15-in., as above	20 l. f.	2.00	2.30	2.50
22. 24-in. as above	38 l. f.	4.00	4.00	4.00
23. 12-in. vit. clay pipe, dbl. str.	310 l. f.	.70	1.25	1.50
24. 15-in. vit. clay pipe, dbl. str.	76 l. f.	1.10	1.65	2.00
25. 18-in. vit. clay pipe, dbl. str.	8 l. f.	1.50	2.00	3.00
26. Std. underdrain with 6-in. pl. corr. galv. met. pipe, asph. coat	40 l. f.	1.25	1.00	2.00
27. Pl. cement conc. gutter	10 c. y.	15.00	16.00	15.00
28. Cable guard rail	96 l. f.	.60	.60	1.00
29. Anchors for cable guard rail	4 ea.	12.00	12.00	20.00
30. Erect state or F. A. markers	2 ea.	15.00	15.00	25.00
31. Brick catch basins or manholes	16 ea.	80.00	125.00	75.00
32. Drop inlet grates	7 ea.	15.00	15.00	20.00
33. Cement concrete sidewalk	409 s. y.	2.00	3.00	1.50
34. Conduit for lighting system	L.S.	2,600.00	2,750.00	3,000.00
35. Fin. grade, fertilize and sod	400 s. y.	.20	.25	1.00
36. Comm. fertilizer for grasses	100 lb.	.10	.05	.25
37. Grass seed	10 lb.	.75	.50	1.00
38. Grass sod	400 s. y.	.75	.75	.75
39. Cut and remove trees	10 ea.	25.00	20.00	20.00

RESERVOIR, TENNESSEE

OWNER: U. S. Engineer Office, Memphis, Tenn.

PROJECT: Construction of Nonconnah Pumping Station Reservoir and placing of two portions of levee embankment to close two gaps in Nonconnah Levee, and appurtenant work for Section 8, a part of the Memphis, Wolf River and Nonconnah Creek Project. Located on right bank of Nonconnah Creek, Shelby County, Tennessee.

CONDITIONS: Contractor to furnish all materials and complete work without interference to other government work in same area. Wage rates are: skilled labor, $1.12½ to $1.50 per hr.; semi-skilled, 60 to 85c; and common, 35c.

BIDS: Four bids were opened June 26, 1941, ranging from the low of $87,954 to $135,650. Engineer's estimate $104,248.

LIST OF BIDDERS:

1. West Memphis Constr. Co., West Memphis, Ark. ... $ 87,954
2. C. J. List Constr. Co., Kansas City, Mo. ... 118,328
3. Wm. Crumpecker & Son, Morehouse, Mo. ... 120,864
4. Ziegler Constr. Co., Nashville, Tenn. ... 135,650

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Excavation	293,500 c. y.	$0.188	$0.285	$0.26
2. Levee embankment	43,000 c. y.	.188	.29	.26
3. Ditch paving	9,800 s. y.	2.50	2.25	3.55
4. Levee roadway	320 s. y.	.60	.50	1.70

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents

Symbols and Abbreviations Include:

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges, Grade Cross'gs
Streets & Roads
Earthwork, Waterways
Unclassified
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: All low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

WATER SUPPLY

PROPOSED WORK

Ark., Bonneville—Ark. T. B. Hospital, water line, pump, plant. $15,000. R. E. Williams, Pyramid Bldg., Little Rock, engr.

Ark., Little Rock—C. E. Mayer, mayor, feeder main for WW distr. sys. $80,000.

Ia., Council Bluffs—F. W. McCall, mayor, intake on Missouri River for water supply. $40,000. Burns & McDonnell, 107 W. Linwood Blvd., Kansas City, Mo., engrs. CD 9/18—ENR 9/26.

Ia., Davenport—Davenport Water Co., J. N. Wells, mgr., WW imprvs., 3 low surface pump. units, concrete storage basin, changing filter units.

Ia., Pella—F. N. DeWitt, city clk., elevated steel tank on tower and piping for Water Dpt. $15,000.

La., Oakdale—L. A. Ford, city secy., water and sewer imprvs., well, pumps, reservoir. $388,769. Application filed for PWA funds. A. F. Rideout, Oakdale, engr.

★**Miss., Jackson**—Mayor, imprv. ww sys. $750,000.

O., Vandalia—C. Senseman, mayor, water supply sys. $350,000. Applied for PWA gr.

★**Ore., Portland**—Expanding WW sys. $500,000. B. S. Morrow, City Hall, ch. engr. and mgr. City Water Bureau.

Pa., Ligonier—Ligonier Water Co., Ligonier, reservoir to enlarge present capacity water supply sys. Over $15,000.

†**Pa., Middletown**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., extenwater supply sys. Over $15,000. H. A. Kuljian, 1518 Walnut St., Phila., engr.

†**S. C., Moultrieville**—Con. Q.M., Fort Moultrie, bids soon 150,000 gal. elevated water tank.

★**Tex., Abilene**—W. W. Hair, mayor, WW and sewer imprvts. treatment plant imprvs. water distr. sys., Lake Abilene Dam, Ft. Phantom Hill pumps and power line, sewage treatment plant, outfall sewer, etc. $658,000. Applied for PWA funds. Freese & Nichols, Capps Bldg., Fort Worth, engrs.

Tex., Brownwood—Brown Co. Water Imprvt. Dist. 1, H. B. Pettis, pres., water purification and storage facilities, aeration, coagulation, sedimentation, filtration, etc., increasing plant cap. from 4 million to 8 million gal.p.d. cap. (Tex. 41-143), Tamm & Fitzgerald, Harlingen, engrs. Application filed for PWA funds. CD 3/13—ENR 3/20.

Tex., Cuero—J. T. Newman, mayor, WW imprvs. $71,000. Applied for PWA funds. E. F. Miles, Victoria, engr. CD 6/26—ENR 7/3.

Tex., Mart—Voted bonds WW impvs., filtration plant, concrete surface storage tank, etc. $40,000. Koch & Fowler, Great Natl. Life Bldg., Dallas, engrs. CD 7/22—ENR 4/10.

Tex., Mineral Wells—J. C. Miller, mayor, WW imprvs., extens., storage reservoir, imprvs. pump sta. and water treatment plant. $260,000. Applied for PWA funds. J. Montgomery, Littlefield Bldg., Austin, and J. J. Rady, Majestic Bldg., Fort Worth, engrs.

Tex., Port Lavaca—Expanding, imprv. WW sys. $52,000. D. C. Roemer, city engr.

Tex., Wichita Falls—J. Bryan Miller, mayor, WW extens., imprvs. $147,000. Application filed on PWA funds. F. M. Rugeley, Wichita Falls, engr.

Va., Radford—Filtration plant. $186,000. PWA. Wiley & Wilson, Lynchburg, archts. and engrs.

Wash., Bellingham—Diverting dam in Nooksack River, near Wickersham, 8 mi. pipeline, flume or ditch, carry water to Lake Whatcom. $50,000. E. W. Gooch, City Hall, engr.

★**Wash., Bremerton**—Imprv. WW sys. $500,000.

Wash., Kelso—Exten., imprv. water sys. $125,000. J. L. Henderson & R. G. Anderson, City Hall, Vancouver, engrs.

Wash., Napavine—Dig well, watermains, $6,000.. R. Welsh, City Hall, Centralia, engr.

Wash., Seattle — Replacing watermains. $100,000. C. L. Wartelle, County-City Bldg., engr.

★**Wash., Tacoma**—Additional water supply sys. $2,386,000. W. A. Kunigk, water supt.

Wash., Tacoma—Pierce Co., Courthouse, water supply sys. for area adjacent to Fort Lewis. $300,000. Will probably organize water district.

★**Wash., Vancouver**—Imprv. water distr. sys. $600,000. Bonds voted. J. L. Henderson, City Hall, engr.

Wis., Lake (Milwaukee P. O.)—20,000 ft. 6 to 12-in. c.i. watermains, Silverdale Ave. W. D. Darby, 6035 W. National Ave., West Allis, engr.

Wis., Manitowoc—Water storage tank. Over $15,000.

Wis., Peshtigo—Special election August 19, WW sys. $60,000. A. E. McMahon Eng. Co., Menasha, engrs. CD 7/16—ENR 7/24.

Wis., Warrens—Sanitary Dist., WW supply sys. $38,000. General Eng., Co., Portage, engr.

BIDS ASKED

Bids Asked August 12

Okla., Oklahoma City—Dam and canal for Bluff Creek project. Bid 7/29 rejected. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs. CD 7/18—ENR 7/24.

Bids Asked August 14

Wash., Seattle—Bd. P. Wks., furnishing, installing, c.i. watermains, gate valves, hydrants, 44 Ave. N. E., $13,400; Sand Point way, $6,420; furnishnig 7,500 ft. 8 in. c.i. pipe for replacement work.

Bids Asked August 15

†**Idaho, Porthill**—Public Bldgs. Administration, Wash., D. C., water supply sys. for border station.

Bids Asked August 16

Ill., Centralia—At office City Clerk, Water Supply, Div. C, earth dam, Div. D, low service pump. sta.; Div. E, high service pump sta.; Div. F, furnishing pump. equip. Greeley & Hansen, 6 N. Michigan Ave., Chicago, engrs.; adv. ENR 8/7.

Bids Asked August 22

Mass., Brookline—Water Dpt., 329 Washington St., 1 story, concrete, brick meter bldg. $20,000. Coolidge, Shepley, Bulfinch & Abbott, 1 Court St., Boston, archts.

Conn., Hartford—Bd. Contr. & Supply, Metropolitan Dist., Municipal Bldg., 550 Main St., regulator house superstructure at filtration plant, West Hartford. Contr. 58. E. Dillon, clk.; adv. ENR 8/7.

Bids Asked August 26

Calif., San Diego—Constructing San Vicente dam, San Vacinte Creek, 25 mi. northeast of here. $4,300,000 available for entire project incl. contribution to hy. work, 5 mi. pipeline to connect with present El Capital line. F. D. Pyle, City Hall, engr. City furnishes cement, pipe and appurtenants to be advertised for later. CD 11/13—ENR 11/22.

LOW BIDDERS

Mo., Kansas City—City, July 29, addns. altering settling basins North Kansas City, from S. Patti Constr. Co., 1114 Bway.—Kansas City, **$370,500.** Est. $350,000. CD 7/24—ENR 7/17.

CONTRACTS AWARDED

†**Fla., Valpariso**—U. S. Eng., P. O. Box 4970 Jacksonville, 3 water supply stations and wells, Eglin Field, to Layne Central Co., 1993 Chelsea Ave., Memphis, Tenn. $41,550. Awarded 7/26.

†**Miss., Biloxi**—U. S. Eng., Mobile, Ala., 3 tanks, towers, fdns., pump installations, connections, etc. Air School Training Station to Chicago Bridge & Iron Wks., 1500 N. 50 St., Birmingham, Ala. **$141,900.** Est. $150,000. Awarded 7/22.

N. C., Granite Falls—WW imprvs., water extens., filtration plant, pump. station, to Boyd & Goforth, Inc., 617 N. Smith St., Charlotte. L. R. Rink, Hickory, engr.

★**Okla., Oklahoma City**—Distr. sys. water supply, to Sherman Machine & Iron Wks., 18 E. Main St., E. W. Baker & Co., NW 39 St., B & M Constr. Co., Petro Bldg., and M. A. Swatek & Co., 519½ W. Main St. **$1,700,000.** Bids July 29 for dam and canal for Bluff Creek project rejected. V. V. Long & Co., Colcord Bldg., engrs. CD 7/18—ENR 7/24.

Pa., Corry—Corry Water Serv. Co., R. Greene, mgr., Corry, exten. c.i. water service mains, various streets own forces. $20,000. CD 7/16—ENR 7/24.

Tenn., Jackson—A. B. Faust, mayor, watermains. WPA. **$50,000.**

Tex., Freeport — W. Allen, mayor, WW imprvs., to Tellepsen Constr. Co., 3300 Clay Ave., Houston, **$19,000.** Est. $19,500. Bids 7/19. CD 7/15—ENR 9/26.

†**Tex., San Antonio**—U. S. Eng., Galveston, steel drinking water tank in military area, to Chicago Bridge & Iron Co., 2919 Main St., Houston. **$53,683.** Est. $60,000.

SEWERS, WASTE DISPOSAL

PROPOSED WORK

★**Ala., Montgomery** — Sewage treatment plant, $677,300. Nicrosi & Adams, Vandiver Bldg., archt.

Calif., Lompoc—Sewage disposal sys. $200,000. Leeds, Barnard, Hill & Jewett, Edison Bldg., Los Angeles, engrs.

Ark., Cabot—Mayor, sewerage sys. $128,162. H. R. Carter, Union Life Bldg., Little Rock, engr.

Ark., Fort Smith—Sewerage sys., Midland Heights sect. $60,000.

Ark., Texarkana—Mayor, imprv. sewerage sys. $100,000.

Kan., Topeka Twp. (RFD from Topeka)—Preliminary plans sewerage sys., Highland Park Dist., considering disposal plant. $20,000. H. H. Staley, New England Bank Bldg., Topeka, engr.

Mich., Grand Rapids—Surveys sewage plant addn., 200,000 cu. ft. gas holder, 2 digester tanks, fertilizer plant addn. $125,000. Consoer, Townsend & Quinlan, 211 W. Wacker Dr., Chicago, Ill., engrs.

Mo., Cape Girardeau—Mayor, exten. sewerage sys. J. Walther, Cape Girardeau, engr.

O., Vandalia—Sewerage sys., sewage disposal plant. $350,000. Applied to PWA for gr. G. R. Stellar, 213 Monteray Ave., Dayton, engr.

Pa., Scranton—W. Schunk, dir. P. Wks., City Hall, sanitary sewerage sys. East Mountain section. $27,000—$30,000. F. K. Derby, city engr.

SEWERS, etc., (Proposed Work, Cont'd.)

S. C., Charleston—Increasing burning capacity 50% and storage capacity by 100%, incinerator addn. $151,000. B. M. Thomson, city engr.

Tex., Cuero—City, c/o J. T. Newman, mayor, sanitary sewerage exten., disposal plant, pumps, etc. $79,000. Applied for PWA funds. E. F. Miles, Victoria, engr. CD 6/26—ENR 7/3.

★**Tex., El Paso**—J. E. Anderson, mayor, imprv. sanitary sewers, disposal plant, intercepting lines, pump plant, etc. $620,000; incinerator $180,000. Applied for PWA funds. Headman, Ferguson & Carollo, Phoenix, Ariz., engrs. CD 7/28—ENR 7/31.

Tex., Mart—Voted bonds sanitary sewerage sys. expansion, imprvs. $50,000. Koch & Fowler, c/o Great Natl. Life Bldg., Dallas, engrs. CD 7/22—ENR 7/10.

Tex., Mineral Wells—J. C. Miller, mayor, sanitary sewerage sys. exten., disposal plant. $154,000. J. Montgomery, Littlefield Bldg., Austin, J. J. Rady, Majestic Bldg., Fort Worth, engrs. Applied for PWA funds.

Tex., Orange Grove—Orange Grove Twp., A. Wendt, mayor, voted bonds, sanitary sewerage sys. $28,000.

Tex., Port Lavaca—Expansion, imprvs. sanitary sewerage sys. $70,000. D. Roemer, city engr.

Tex., Texarkana—W. V. Brown, mayor, sewerage sys. imprvts. (Tex. 41-165) pipe, manholes, sewer service lines, settling tanks, filters, etc. $315,000; storm sewers (Tex. 41-163), $47,000; 1 story, 27x41 ft., brick, concrete incinerator (Tex. 41-162), $79,000. Applied for PWA funds. J. Montgomery, Littlefield Bldg., and J. J. Rady, Majestic Bldg., Fort Worth, engrs.

Wash., Bremerton—Incinerator, $185,000.

Wash., Bremerton—Sewerage sys. exten., $200,000. CD 3/21—ENR 3/27.

★**Wash., Olympia**—Exten. and betterment sewerage sys., $500,000. Federal Aid sought. C. H. Williams, City Hall, engr.

Wash., Pleasant Valley—Sewer, water sys., $50,000.

★**Wash., Tacoma**—Exten. replacement sewerage sys. $3,600,000. Federal aid sought. C. D. Forsbeck, City Hall, engr.

★**Wash., Vancouver**—Sewage disposal sys. $3,000,000. A. N. Stanley, mayor.

BIDS ASKED

Bids Asked August 12

D. C., Wash.—Dist. Comrs., Wash., D. C., 635 lin. ft. terra cotta storm sewer in Carpenter St. between Pennsylvania Ave. and Highwood Dr. S.E.

D. C., Wash.—Dist. Comrs., Wash., D. C., 1,730 lin. ft. terra cotta service sewer, vicinity Kansas Ave and Chillum Pl. N.E.

Bids Asked August 13

N. Y., New York—President Bronx Boro, Bronx County Bldg., sewer, Lafayette, Noble and Holland Aves.

Pa., Monaca—G. F. Wilson, boro secy., Municipal Bldg., sewer and water lines, 4,500 ft. centrifugal cast pipe for waterlines, 7,000 ft. 8 in. terra cotta sewer pipe.

Bids Asked August 14

†**Calif., San Diego**—Headquarters Naval Operating Base 11th Naval Dist., outfall sewer, Spec. 10513; mechanical and electrical equip. for sewage disposal plant, Spec. 10515, Naval Operating Base; trunk sewer line for city of San Diego and Naval activities within Naval Operating Base, Spec. 10514.

Bids Asked August 20

Calif., El Segundo—Sanitary sewer outfall. Over $25,000. R. T. Huthins, City Hall, engr.

†**N. C., Wilmington**—Con. Q.M. Camp Davis, steel incinerator superstructure; adv. ENR 8/7.

Bids Asked

Calif., Whittier—2,660 lin. ft. 4 ft. 6 in. arch top rein.-con. storm drain.

LOW BIDDERS

N. Y., Jamaica—Dpt. P. Wks., Municipal Bldg., New York, July 28, Contr. 14-A, sludge drying beds and sludge lines, Jamaica Sewage Treatment Works, from Walthaw Corp., 1860 Bway., New York, $94,875. CD 7/8—ENR 7/10.

Wash., Seattle—C. L. Wartelle, engr., County-City Bldg., July 24, manholes, catchbasins, sewers, W. Viewmont Way, from Valley Constr. Co., 8423-48 Ave. S. $137,854. Est. $142,164. CD 7/17.

CONTRACTS AWARDED

Colo., Sterling—Storm sewers and street imprvs. WPA. $94,574. H. M. Krull, clk.

Ill., Villa Grove—Sanitary sewerage sys., sewage disposal plant, WPA. $180,000.

Ia., Belle Plaine—Sewer and watermain extens. WPA. $52,000. E. E. Eyler, clk. CD 7/7—ENR 7/10.

Ia., West Union—Exten. sewer mains in sanitary sys., to Dan Christensen Constr. Co., Cedar Rapids, $30,713; sewage disposal plant, to E. B. Spencer Constr. Co., Waterloo, $30,700. Bids 7/28. CD 7/14—ENR 7/17.

N. Y., Freeport—Bd. Sewer Comrs., L. Fishel, chn., Municipal Bldg., 46 North Ocean Ave., addns. and imprvs. pump. sta. and sewage treatment works, to Gifford Constr. Co., 45 Middleneck Rd., Great Neck. $79,231. Bids 7/12. CD 6/17—ENR 6/19.

O., Lakemore—Expansion sewerage sys. of Lakemore village to serve Edwin Shaw Sanitorium, trunk line connecting village with Akron sys., lateral to Lakemore Homes, WPA. $240,000. Morris Nall, 3478 Woodridge Rd., Cleveland, engr. in charge, representing P. E. Elwell, Cleveland, engr.

Tex., Groves — Sanitary sewers, WPA. $52,181.

BRIDGES, GRADE CROSSINGS

PROPOSED WORK

Kansas—Shawnee Co., Topeka, 5 bridges, $40,000. W. A. King, co. engr.

Missouri—State Hy. Comn., Jefferson City, three 57 ft. continuous I-beam spans, one 78 ft. and two 67 ft. continuous steel deck plate girder bridge over Moniteau Creek, Columbia-Boonville Rd., Route 40, Proj. SU FA 235 C5, Boone and Howard Counties; two 12 ft. rein.-con. slab span, culvert type bridge over McGill Branch, Route 40, Proj. SN-FA 229 A3, Columbia-Boonville Rd., Boone Co.; two 40 ft., one 30 ft. rein.-con. deck girder span bridge over Tebo Creek, Windsor-Clinton Rd., Route 52, Proj. FAGH 133 A4, Henry Co.; one 49 ft., four 39 ft., I-beam span bridge over North Fork South Fabins River, Route SA, Proj. FAS 15 D1, Green Top East road, Adair Co.; one 80 ft., steel deck plate girder, widening, reconstructing two 20 ft. rein.-con. slab span bridge over Peno Creek, Route 61, Proj. FA 257 F5, Frankford-Bowling Green Rd., Pike Co.; two 35 ft., one 32 ft., six 30 ft., rein.-con. deck girder spans, etc., over M. K. and T. R. R. tracks, Route 52, Proj. FAGH 133 A3, Clinton-Windsor Rd., Henry Co.; one 27 ft., rein.-con. slab span culvert type bridge over Fire Prairie Creek, Route 7, Proj. A1-FA 865 A1, Route 24-Lake City Rd., Jackson Co.; two 10 ft., rein.-con. slab span culvert type bridge over South Fork Brushy Creek, Route SD, Proj. FAS 107 A1, Knobnoster-Southerland Rd., Johnson Co. C. W. Brown, Jefferson City, engr.

Missouri—State Hy. Comn., Jefferson City, one 34 ft. I-beam span underpass concrete abutments to rock, under St. Louis, San Francisco R.R., Route 13, Proj. FAGM SN 693A1, road in Bolivar, Polk Co.; two 12 ft., rein.-con. slan span, culvert bridge, over overflow of Finley Creek, Route 65 SEC 100 A, Springfield-Ozark Rd., Christian Co. C. W. Brown, Jefferson City, engr.

Mont., Kalispell — Flathead Co., Kalispell, bridge over Flathead River. $30,000.

N. C., Williamston—State Hy. & P. Wks. Comn., Raleigh, draw bridge over Roanoke River, Martin Co. Over $25,000. W. V. Baise, Raleigh, engr.

O., Ashtabula—Bd. Comrs. Ashtabula Co., Jefferson, 2 span, steel beam bridge over Grand River in Austinburg Twp. between Cold Springs and Mechancaville. $27,000. C. O. Topper, Jeffersonville, co. engr.

Tex., Fort Worth—Tarrant Co., D. Miller, judge, 4 bridges, on White Settlement Rd. $150,000. Will apply to PWA for funds. H. Cook, 1227 E. Richmond St., engr.

★**Tex., Houston**—Harris Co., c/o Judge, concrete, steel bridge over Greens Bayou, $270,000; 2 concrete, steel overpasses on North Loop Defense Route, $352,000. H. W. H. Zapp, c/o Court House, co. engr.

Tex., Sherman—Grayson Co., c/o Judge, bond election Aug. 23, bridges. $120,000.

Tex., Victoria—Victoria Co., c/o A. B. Chambers, judge, lengthen bridges, incl. drainage ditch 2.3 mi. long, enlarging 41.7 mi. ditches. $103,500. Applied for PWA funds. B. T. Lampkin, 418 Weides Bldg., engr. CD 7/28—ENR 7/31.

★**Wash., Tacoma**—Bridge, 11 St. $880,000. Federal funds sought. C. D. Forsbeck, City Hall, engr.

Wash., Tacoma—Bridge, E. 34 St. $200,000. PWA. C. D. Forsbeck, City Hall, engr. CD 12/16—ENR 12/19.

Wash., Tacoma—Bridge, E. 25 St. $100,000. C. D. Gorsbeck, City Hall, engr.

Wis., Manitowoc—Bridge, S. 21 St. $360,000. E. Walter, city engr.

Wis., New London—Outagamie Co., Hy. Comn., Appleton, plans readvertising for 100 ft. span, concrete bridge over Embarass River because structural steel will not be available for at least 6 mo. A. L. Krueger, Appleton, engr.

BIDS ASKED

Bids Asked August 11

Connecticut—State Hy. Comn., W. J. Cox, comr., Hartford, rein.-con. bridge over Mill River, 675 ft. drainage and grading, Hamden and North Haven; 2 span stone faced rein.-con. bridge over Hartford Bypass, Ridge Rd., and rigid frame bridge over Hartford Bypass, McMullen Ave., 3,512 ft. grading, drainage, both Weathersfield. Over $25,000.

Bids Asked August 12

N. Y., Brooklyn—Dpt. P. Wks., Municipal Bldg., New York, Contr. 2, reconstructing track stringers, westerly lower deck main span and Brooklyn side span, Manhattan Bridge.

Bids Asked August 14

Wash., Seattle—City Light Dpt., City Light Bldg., steel railroad bridge across Stetattle Creek, and 2 across Skagit River near Ferry Bar. $100,000. E. R. Hoffman, City Light Bldg., city light supt.

Bids Asked August 15

Minnesota—State Hy. Dpt., St. Paul, Bridge 6404, Bridge 6405 over Chanaramble Creek, State Rd. 4, Bridge 6406 over Rock River, Bridge 6407 over Poplar Creek, SAR 9, all foregoing Proj. 59-502-03, FAS 113B(2), Pipestone Co. J. T. Ellison, c/o owner, ch. engr.

Bids Asked August 19

D. C., Wash.—Dist. Comrs., Wash., D. C., two 2 span steel beam bridges, in line of South Capital St. at Oxon Run and Southern Ave.

Bids Asked August 21

†**Mississippi**—Public Roads Administration, 219 Old Post Office Bldg., Vicksburg, steel girder bridge with concrete floor and concrete piers with creosoted timber pile approach spans, grading, surfacing approaches, 0.464 mi. P. 17A, Mississippi Forest Hy. Homochitto Natl. Forest, Franklin and Wilkinson Counties; adv. ENR 8/7.

Va., Richmond—At office G. M. Bowers, dir. P. Wks., 217 Governor St., bridge over James River, 9 St. Harrington & Cortelyou, 1004 Baltimore Ave., Kansas City, Mo., consult. engrs.; adv. ENR 8/7. CD 11/24/39—ENR 11/30/39.

Bids Asked August 22

New Jersey—E. D. Sterner, comr., State Hy. Dpt., Cheesequake Creek Bridge, Route 35, Sect. 38, Sayreville, Madison Twp., Middlesex Co.; reconstructing underpass, Pennsylvania-Reading Seashore Lines, East Red Bank Ave., FAGM-32 (1) Off. Woodbury; adv. ENR 8/7.

Bids Asked September 8

O., Lowellville—Mahoning Co., Youngstown, 650 ft. bridge over Mahoning River, on Lowellville Bedford Rd. $125,000. Bids 7/15 rejected. CD 7/23—ENR 7/31, under LB.

LOW BIDDERS

Connecticut—State Hy. Comn., W. J. Cox, comr., Hartford, July 28, twin steel rigid frame bridge, approaches, Wethersfield, from L. G. De Felice, 51 Alston Ave., New Haven, **$113,613**; rein.-con. slab bridge deck, Windsor Locks and East Windsor, from General Eng. & Constr. Co., 29 Deborag St., Providence, R. I. **$39,376**. CD 7/21—ENR 7/24.

Illinois—State Dpt. P. Wks. & Bldgs., Div. Hys., Springfield, July 29, fabricating, del. steel for I-beam bridge superstructure, for Chicago, Rock Island and Pacific R.R. subway, 159 St. N.S.6, west of Cicero Ave., Oak Forest, Cook Co., from Bethlehem Steel Co., 400 N. Michigan Ave., Chicago, **$25,393**; rein.-con. substructure, Salt reek Bridge, reloc. U.S. Hy. 66 Logan Co., from Joyce Bros. Constg. Co., 1516 Noble Ave., Springfield, **$59,347*****I-beam bridge for grade separation Rt. 43 and Reloc. U.S. 40, west of St. Jacob, Madison Co., from H. H. Hall Constr. Co., East St. Louis, **$29,987*****2 rein.-con. structures, erecting 2 I-beam superstructures for Kyte Creek Bridge and Chicago, Burlington & Quincy R.R., bridge, Lowden Rd., southeast of Oregon, Ogle Co., from Shappert Eng. Co., Belvidere, **$55,012**. E. Lieberman, Centennial Bldg., Springfield, engr.

Iowa—State Hy. Comn., Ames, July 29, bridges Bremer Co., from Waugh & Tackman, Clarksville, **$29,992**; bridge, Polk Co., from A. M. Cohron, 1007 Army Post Rd., Des Moines, **$27,972**. CD 7/18—ENR 7/24.

Louisiana—Dpt. Hys., Baton Rouge, July 30, Charenton Bridge over Bayou Teche and approaches, P. 913-04-84, St. Mary Parish, and Jeanerette Bridge over Bayou Teche, P 913-04-83, Iberia Parish, from Austin Bridge Co., 1813 Clarence St., Dallas, Tex., **$90,976** and **$92,045** respectively. CD 7/9—ENR 7/17, under Roads.

Maryland—State Roads Comn., Baltimore, July 29, imprv. 5.2 mi. Prince George Co., from Pembroke & Gasparovic, Great Mills. **$151,309**, CD 7/2—ENR 7/24.

Michigan—State Hy. Dpt., Lansing, July 23, rein.-con., steel bridge, Monroe Co., from D. T. Frank, 542 Evergreen St., East Lansing, **$26,807*****bridge, Kent Co., from L. W. Lamb, 1833 Park Rd., Holland, **$93,368*****bridge, Arenac Co., from E. Stiehl, Omer, **$25,568**. CD 7/17.

North Carolina—State Hy. & P. Wks. Comn., Raleigh, July 29, from Bowers Constr. Co., Inc., 805 W. South St., Raleigh, structures 1.11 mi. P. 9589, Jackson Co., **$54,021**, est. $50,000-$75,000; 6.58 mi. P. 6771, Scotland and Robeson Counties, **$43,940**, est. $175,000-$200,000; 2.75 mi. P. 1026, Beaufort Co., **$53,558**, est. $25,000-$50,000. CD 7/18—ENR 7/24.

BRIDGES, etc. (Low Bidders, Cont'd.)

★**South Carolina**—State Hy. Dpt., Columbia, July 29, from Bowers Constr. Co., Raleigh, N. C., 3,750 ft. portion bridge over Santee River, 810 ft. bridge over Santee River Swamp near Parler, Clarendon Co., **$499,899**; from Wannamaker & Wells, Inc., and McMeekin Constr. Co., Cheraw, 1,470 ft. portion Bridge 1 between Sta. 40 plus 35.563 and northeast end Bridge 1 over Santee River, and 810 ft. bridge being Bridge 2 over Santee River Swamp near Parler, Clarendon Co., **$268,013**; 2,280 ft. portion Bridge 1 between Sta. 17 plus 55.263 and 40 plus 35.563 over Santee River near Parler, Clarendon Co., **$255,453**; 19 rein.-con. piers, 1 steel H pile and bent, being substructure Bridge 1 over main channel Santee River near Parler, Clarendon and Orangeburg Counties, **$197,108**. CD 7/17—ENR 7/24.

Texas—D. C. Greer, engr. Hy. Dpt., Austin, July 30, Sabine River, Sabine River Relief and Coy Creek Bridges, Wood and Smith Counties, from R. C. Buckner, Box 609, Jacksonville, **$98,718**. Est. $100,000. CD 7/23—ENR 7/24.

Wisconsin—State Hy. Dpt., Madison, July 29, Bridge 775, Pierce Co., from J. E. Hinman & Son, Glenwood City, **$30,443**; Lone Rock Bridge, etc., Richland and Sauk Counties, from L. G. Arnold, Inc., Eau Claire, **$208,440**. Received no bids 7/29, Bridge 659, Helen Creek Bridge, Vilas Co.

CONTRACTS AWARDED

Arkansas—State Hy. Dpt., Little Rock, 875 ft. rein.-con., steel bridges over White River, Washington Co., to Vincennes Steel Corp., Vincennes, Ind. **$123,314**. Est. $100,000. CD 7/25.

Georgia—State Hy. Dpt., bridge at Ochlochnee River, and 0.559 mi. concrete paved approaches, Thomas Co., to Scott Constr. Co., Thomasville, **$178,216**. Bids 7/25. CD 7/11—ENR 7/17, under Roads.

Maine—State Hy. Dpt., Augusta, Mile Brook Bridge, Winslow, to Edgar R. Cyr, 33 Summer St., Waterville. **$92,905**. Bids 7/23. CD 7/17.

STREETS AND ROADS

BIDS ASKED

Bids Asked August 11

Connecticut—State Hy. Comn., W. J. Cox, comr., Hartford, rein.-con. paving 22,214 ft. Nichols-Shelton Rd. Trunk Line, Trumbull, Stratford, and Shelton; bituminous macadam paving 1,235 ft. Garden St., Enfield; water bound macadam paving 5,204 ft. Peters Lane Rd., Middlefield; graveling, 14,839 ft. Litchfield Trpk. and Beacon Falls Rd., Bethany; 11,362 ft., six sections road Orange; 6,038 ft. gravel surfacing, rein.-con. culvert Minors Bridge Rd., Roxbury. Over $25,000.

N. J., Mt. Laurel—Mt. Laurel Twp., gravel surfacing 21,100 sq. yd. Elbow Lane. E. K. Bryant, 127 High St., Mt. Holly, engr.

Bids Asked August 12

Pa., Swissvale—D. J. Caldwell, boro clk., Municipal Bldg., grading, paving, curbing, storm and sanitary sewer drainage. $25,000. A. Hutchinson, 600 South Ave., Wilkinsburg, boro engr.

West Virginia—State Rd. Comn., Charleston, surface treatment 7.15 mi. Jct. W. Va. 57 to Upshur Co. Line Rd. and S.P. 3276, 1 mi. Philippi through Mansfield Rd., Barbour Co.; 12 mi. US 52 near Wayne via Booton to Lavalette Secondary Rd., Wayne Co.; 18.4 mi. Route 52 near Hanover toward Pineville Secondary Rd., Wyoming Co.; grading, surface treatment 3.5 mi. DeKalb-Latonia Rd., Gilmer Co.; grading, draining, concrete paving 2.462 mi. MacCorkle Ave., Kanawha Co.; 2 mi. East Park Ave. and Speedway, Marion Co.; Bridge S-1618, two 65 ft. and one 80 ft. steel I-Beam spans, concrete substructure, Avondale, McDowell Co.

Bids Asked August 13

Colorado—State Hy. Dpt., Denver, gravel surfacing 5.769 mi. S.H. 185, SN FAP-A(1), Constr. Div. 1, Larimer and Weld Counties. C. D. Vail, State Office Bldg., Denver, engr.

Kansas—State Hy. Dpt. at office Co. Clk., Great Bend, single asphalt surface treatment 12.168 mi. 5515 ABC, Pawnee Co.; 7.864 mi. K5064 Parts 1 and 2; 8.862 mi. K5503, both Barton Co.; 3.25 mi. K5510, Edwards Co.; 11.489 mi. 5799 AB, 2.509 mi. K5065 Parts land 2, 1.219 mi. 5797 AB, all foregoing Barber Co.; 12.418 mi. K5505, Butler Co.; 5.389 mi. K5511 Harper Co.; 15.849 mi. K5518, Rush Co.; 13.988 mi. K5522, Sumner Co.; 5.224 mi. 5509 AB, Cowley Co.; stabilized and double asphalt surface treatment 6.208 mi. FA 537 E, parts 1 and 2, Barton Co.; 3.047 mi. FA 537 D, Rush Co.; resurfacing material 1 mi. K5520, 15.876 mi. K5521, both Summer Co.; 8.985 mi. K5517, Pratt Co.; 11 mi. K5866; 16.437 mi. K5506, both Comanche Co.; 11.3 mi. K5867, Kiowa Co.; 9.034 mi. K5512, Harper Co.; 2.005 mi. K5507; 6.128 mi. K5508, both Cowley Co.; 7.5 mi. K5865; 15 mi. K5871; 10.158 mi. K5500; 3.14 mi. K5501; 28.05 mi. K5502; 2.32 mi. K5798, all foregoing Barber Co.

Bids Asked August 14

Florida—State Road Dpt., T. A. Johnson, chn., Tallahassee, sand bituminous road mix paving 3.5 mi. Rd. 15, SP 5637(2), Wakulla Co. J. H. Dowling, state hy. engr.

Mass., Medford—Commonwealth of Mass., Metropolitan Dist., Parks Div., 20 Somerset St., Boston, concrete traffic circle, approaches, intersection Middlesex Fells Parkway, Mystic Valley Parkway, and Revere Beach Parkway. Over $100,000.

Nebraska—Dpt. Roads & Irrigation, Lincoln, W. G. Scott, state engr., paving 0.6 mi. Millard Omaha Fed. Aid Grade Crossing Proj. FAGH-35 B(1) and FAP 35-B (3), Douglas Co.

Oregon—State Hy. Comn., Portland, grading 2.99 mi. bituminous macadam surfacing 3.13 mi. Banzer Bridge-Mist sect. Nehalem secondary hy., Columbia Co.; grading, topping 5.4 mi. north unit, Wrights Point-Narrows sect. Frenchglen secondary hy., Harney Co.; grading, surfacing, oiling 1.26 mi. Fisher Rd.-Oak Hill sect. Eugene-Swisshome secondary hy., Lane Co.; grading, surfacing, bituminous macadam surfacing 3.5 mi. Forest Boundary-Reed Creek sect. Siletz secondary hy., Lincoln Co.; grading, widening, paving 3.2 mi. Middle unit, Crabtree Corner-Lebanon sect. Santiam Hy., Linn Co.; grading, surfacing oiling 5.07 mi. west unit, Shaniko-Cow canyon sect. Sherman Hy., Wasco Co.; furnishing 54,000 lb. structural steel for Morrison St. bridge (Portland), as necessary to rebuild west truss of bridge, Multnomah Co. R. H. Baldock, Salem, engr.

Wash., Seattle—Grading, curbing, watermains, concrete paving, 21,600 sq.yd. Stone Ave. $63,200. C. L. Wartelle, County-City Bldg., engr.

Bids Asked August 15

Kansas—State Hy. Dpt., Greensburg, stabilized and asphalt surface treating 8.728 mi. FA 267 C, Kiowa Co. R. B. Wills, Topeka, engr.

Minnesota—State Hy. Dpt., St. Paul, grading, sand-gravel fill, 8.5 mi. S.P. 3310-01 (Trunk Hy. 70-135 and S.P. 58-1-01 (TH 70-133); box culvert, 3.8 mi. S.P. 11-3-02 (TH 6-137); grading, gravel base, 14.6 mi. S.P. 0105-01 (TH 34-34) and S.P. 1108-04 TH 34-34; 11.5 mi. S.P. 0112-09 (TH 65-5); sand-gravel fill, gravel backfill, 11.7 mi. S.P. 0102-06 (TH 18-158); bituminous material surfacing 11 mi. S.P. 8305-10 and 11 (TH 15-15) and S.P. 0805-05 (TH 15-15); 4.6 mi. S.P. 2733-23 (TH 100-130) FAP 603B(3); grading 3.7 mi. State Rd. 1, Proj. 85-502-01, Winona Co.; gravel surfacing, bituminous material, mineral aggregate surfacing 2.5 mi. State Rd. 5, Proj. 65-501-01, Renville Co. J. T. Ellison, c/o owner, ch. engr.

New Mexico—B. G. Dwyre, engr. state hy. Dpt., Santa Fe, base course surfacing double penetration paving 2.811 mi. Romeroville-Dilia Rd., SAP 21A and B, San Miguel Co., $25,000; sealcoating 32.7 mi. Road Forks-Arizona Line Rd., SAP 54, Hidalgo Co., $30,000; drainage structures Datil-Arizona line road, S.P. 73 (struct), Catron Co., $60,000; base course surfacing, placing double penetration wearing top 5.889 mi. Gallup-Ft. Defiance Rd., FAS 209 A(3), McKinley Co., $50,000; 1.69 mi. Romeroville-Las Vegas Rd., FAP 60 B(50), San Miguel Co.; 5.709 mi. Gallup-Ft. Defiance Rd., FAS 209 B(3), McKinley Co., $50,000; preparation of base placing base course surfacing, double penetration wearing top 6.071 mi. FAP 152 A(3), San Miguel Co., $65,000; 12.131 mi. Lordsburg-Silver City, FAP 168 B(2), Grant Co., $70,000; grading, minor drainage structures, railroad underpass, vehicular overpass, approaches 0.185 mi. Raton Rd., FAGM 8 DA, Colfax Co., $140,000; sealcoating present oil pavement 19.6 mi. Belen-Socorro Rd., SAP 125 C and G, Socorro and Valencia Counties; concrete box culvert Cuba-Lybrooks Rd., SAP 4 C(2), Sandovel Co.

Bids Asked August 19

†**Conn., Newington**—Veterans Administration, Arlington Bldg., Wash., D. C., resurfacing roads, Veterans Hospital.

Wisconsin—State Hy. Comn., Madison, concrete surfacing 0.773 mi. Madison-Dodgeville Rd., Mt. Horeb-Blue Mounds-Barneveld Rd., U. S. Hys. 18 and 151, Iowa and Dane Counties; 5.362 mi. Blair-LaCrosse Rd., Galesville-Blair Rd., U. S. Hy. 537, Trempealeau Co.; grading, drainage, roadside treatment 3.219 mi. Durand-Ellsworth Rd., West County Line-Arkansaw Rd., U. S. Hy. 10, Pepin Co.; 5.89 mi. Antigo-Eagle River Rd., Hiles Junction-Three Lakes Rd., U. S. Hy. 45, Oneida Co.; grading, drainage, gravel surfacing 0.757 mi. Parkland-East Co. Line-Iron River Rd., Hukella and Smith Creek Structures, S.T. Hy. 13, Douglas Co.; gravel traffic bound surface (base) course 13.62 mi. Port Wing-Bayfield Rd., Sand River-Bayfield Rd., S.T. Hy. 13, Bayfield Co.; graded aggregate surface (base) course 3.082 mi. Stevens Point-Rosholt-S.T. Hy. 29 Rd., Galloway-Elderon Rd., S.T. Hy. 49, Marathon Co.; bituminous surfacing 1.891 mi. Devils Lake State Park-Baraboo Rd., State Park-Baraboo Rd., S.Hy. 123, Sauk Co.; lighting sys. for Bridge 637, Ellsworth-Durand Rd., S.P. 6310, Pepin Co.

Bids Asked August 20

†**Alabama**—Pub. Roads Administration, 305 Medical Arts Bldg., Florence, 5,087 mi. grading, draining, graveling surfacing, bituminous treating Alabama Hy. Project 10 A, Black Warrior Natl. Forest.

California—C. H. Purcell, engr., State Hy. Dpt., P. Wks. Bldg., Sacramento, grading, plantmix on gravel base 0.4 mi. Yolo Co.

N. Y., St. George—Office Dpt. Mental Hygiene, State Office Bldg., Albany, W. J. Tiffany, comr. roads, walks at New York State School for Mental Defectives, Willowbrook, near here. $321,781; adv. ENR 8/7.

Bids Asked August 21

Kentucky—Dpt. Hys., Frankfort, roadside imprv. 0.625 mi. Paris-Winchester Rd., FA 511 A(2) SP 9-99, Bourbon Co.; grading, drainage, high type surfacing 2.442 mi. Mannslick-St. Andrews Rd., FAS 43 A(1), SP 56-218, RH 1, Jefferson Co.; medium type surfacing 11.785 mi. Columbia-Edmonton Rd., SP 1-130, Adair Co.; 11 mi. Liberty-Jamestown Rd., SP 104-18, Casey and Russell Counties; 5.854 mi. Albany-Tennessee State Line Rd., SP 27-86, 2.8 mi. Cartwright-Snow Rd., SP 27-46, both Clinton Co.; 1.628 mi. approaches to bridge, Irvine-McKee Rd., SP 33-63, SP 33-83, Estill Co.; medium type surfacing 7.843 mi. Edmonton-Columbia Rd., SP 95-24, Metcalfe Co.; 7.916 mi. Mt. Sterling-Clay City Rd., SP 87-97 SP 93-120, Montgomery and Powell Counties; resurfacing 4.147 mi. Elizabethtown-Leitchfield Rd., SP 47-199, Hardin Co.; grading, draining, low type resurfacing 4.67 mi. Glasgow-Cave City Rd., SP 5-212, Barren Co.; 2.442 mi. U.S. 68-Guston Rd., SP 82-263, Meade Co.; 2.846 mi. Somerset-Crab Orchard Rd., SP 100-75, Pulaski Co.; high type surfacing 9.686 mi. Madisonville-Dixon Rd., SP 117-209, Webster Co.; 0.274 mi. Paris-Georgetown Rd., SP 9-19, Bourbon Co.; 2 additional concrete, steel spans bridge at Station Camp Creek, Irvine-McKee Rd., FAS 12 A(2) B, SP 33-63, Estill Co.; concrete, steel bridge, Lexington-Richmond Rd., SN-FA 124 A(2) SP 34-104, Fayette Co.; overhead crossing over Illinois Central R. R., Kosmosdale, Louisville-Elizabethtown Rd., AW-FAGH 26 (8) SP 56-178, Jefferson Co.

New Jersey—E. Donald Sterner, comr., State Hy. Dpt., hot application bituminous penetration macadam paving, grading 18,821 sq. yd. Kingwood-Byram Rd., Sect. 5, from Graff's Corner toward Byram, FAS 48-A (1) Hunterdon Co., roadside imprv. 5.148 mi. Route 4 Relocation, Sect. 41 A, Cordon's Corner to Browntown, Monmouth and Middlesex Counties; adv. ENR 8/7.

Bids Asked

Mississippi—State Hy. Comn., Jackson, rejected bids July 22, imprv. 5.309 mi. Chickasaw Co. CD 6/14.

†**Virginia**—Public Roads Administration, Winder Bldg., Wash., D. C. rejected bids June 19 2 tunnels, Blue Ridge Parkway, Amherst and Rockbridge Counties. CD 7/2—ENR 7/10, under LB.

LOW BIDDERS

Calif., Pescadero—Purchasing Agent San Mateo Co., Redwood City, July 28 grading, realigning 1.3 mi. Co. Rd. 55, from N. M. Ball Sons, 685 Delaware St., Berkeley, $33,389. Est over $25,000—CD 7/21.

Connecticut—State Hy. Comn., W. J. Cox, comr., Hartford, July 28, imprv. 6,356 ft. hy. Naugatuck and Waterbury, from Patterson & Rossi, Inc., 60 Main St., Torrington, $267,909; 12,586 ft., Wilbur Cross Hy., Hamden and North Haven, from J. Arborio, Inc., 223 Main St., Poughkeepsie, N. Y. **$249,157**. CD 7/12—ENR 7/24.

★**Illinois**—State Dpt. P. Wks. & Bldgs., Div. Hys., Springfield, July 29, imprv. 1.25 mi. Cicero Ave., Chicago, Cook Co., from Ready Coal & Constr. Co., 4644 S. Halsted St., Chicago, **$109,516*****0.65 mi. U.S. Hy. 66, Logan Co., from Joyce Bros. Constr. Co., 1516 Noble Ave., Springfield, **$38,102*****5.39 mi. Madison Co., from Hoeffken Bros., Belleville, **$299,816*****1.38 mi. Randolph Co., from Regenhardt Constr. Co., Cape Girardeau, Mo., **$253,898*****3.51 mi. Madison Co., from Stocker Gravel & Constr. Co., Highland, **$195,991*****4.73 mi. Madison Co., from Fleming & Kilgo Constr. Co., Alton, **$260,231*****1.24 mi. Rt. 17, Kankakee Co., from Triangle Constr. Co., Kankakee, **$88,516*****0.66 mi. Lake Co., from Eric Bolander Constr. Co., Libertyville, $47,037. E. Lieberman, Centennial Bldg., Springfield, engr.

Iowa—State Hy. Comn., Ames, July 29, imprv. 5.028 mi. Decatur Co., from Booth & Olson, Inc., 622 Ins. Exch. Bldg., Sioux City, **$156,108*****5.702 mi. Lyon Co., from Western Contg. Corp., 2100 E. 4 St., Sioux City, **$157,164*****imprv. hy. Decatur Co., from P. L. Braden, Red Oak, **$47,802**. CD 7/17—ENR 7/24.

★**Kentucky**—State Hy. Dpt., Frankfort, Aug. 1, imprv. 3.555 mi. Bullitt and Jefferson Counties, from K. V. Johnson, Bowling Green, **$87,951*****imprv. 3.555 mi. hy. and steel superstructure, on same road (combined bid) from Tye & Wells, Carrollton, **$112,309*****16.57 mi. Clinton and Cumberland Counties, from Cumberland Constr. Co., Burkesville, **$306,864*****4.632 mi. Leslie Co., from Codell Const. Co., Winchester, **$174,266*****10.422 mi. Lyon and Caldwell Counties, from Corum & Edwards, Madisonville, **$42,026*****5.347 mi. Nicholas Co., from J. F. Mulligan, Inc., Greenville, **$123,818*****4.112 mi. Taylor Co., from Highland Co., Inc., 644 Baxter St., Louisville, **$28,333**. CD 7/15—ENR 7/17.

Louisiana—Dpt. Hys., Baton Rouge, July 30 imprv. 6.9 mi. S. P. 913-04-62; Caddo Parish, from Le Blanc Bros., Baton Rouge, **$61,607***

STREETS, etc. (Low Bidders, Cont'd.)

17.1 mi. P. 913-04-63, Caddo Parish, from Abernathy Constr. Co., Lake Charles, **$32,865.** CD 7/9—ENR 7/17.

★**Michigan**—State Hy. Dpt., Escanaba, July 23, imprv. 7.944 mi. Chippewa Co., from Wilmer Pierson, 2236 Delaware Blvd., Saginaw, **$187,240*****0.7 mi. Delta Co., from Bacca Const. Co., Commercial Bank Bldg., Iron Mountain, **$34,245.** CD 7/17.

★**Michigan**—State Hy. Dpt., Lansing, July 23, imprv. 3.209 mi. Allegan and Van Buren Counties, from W. Pierson, 2236 Delaware Blvd., Saginaw, **$278,327*****12 mi. Antrim and Charlevoix Counties, from A. W. Hodgkiss, Box 311 Petoskey, **$53,280*****2.43 mi. Berrien Co., from J. Yerrington, Eastern Ave., Benton Harbor, **$44,928*****0.294 mi. Cheboygan Co., from Hilding Constr. Co., 48 John Ball Park Dr., Grand Rapids, **$35,143*****10.8 mi. Grand Traverse and Wexford Counties, from General Paving Constr. Co., 235 Union St., S.E. Grand Rapids, **$69,947*****3.076 mi. Kent Co., from L. W. Edison, 924 Floral Dr. S.E., Grand Rapids, **$175,346*****5.9 mi. Livingston and Oakland Counties, from Michigan Asphalt Paving Co., 720 E. Ten Mile Rd., Royal Oak, **$68,960*****0.126 mi. Wayne Co., from Denton Constr. Co., 4255 General Motors Bldg., Detroit, **$51,627*****1.193 mi. Jackson Co., from P. Vander Veen & Sons, 259 Diamond Ave. S.E., Grand Rapids, **$53,481.** CD 7/17.

★**North Carolina**—State Hy. & P. Wks. Comn., Raleigh, from Brown Paving Co., 145 Brevard Ct., Charlotte, imprv. 15.79 mi. Chatham Co., **$454,639,** est. $400,000-$500,000; 9.78 mi. Orange and Durham Counties, **$300,-436,** est. $250,000-$300,000***from Kiker & Yount, Reidsville, 8.37 mi. Davidson Co., **$41,283,** est. $50,000-$75,000; 3.86 mi. Granville Co., **$48,636,** est. $50,000-$75,000; 7.75 mi. Columbus and Bladen Counties, **$90,720,** est. $100,000-$125,000*** from J. S. Hill Corp., Washington, 2.75 mi. Beaufort Co., **$85,128** est. $50,000-$75,000***from Bowers Constr. Co. Inc., 805 W. South St., Raleigh, 0.58 mi. Wake Co., **$53,915,** est. $25,000-$50,000*** from E. W. Grannis, Fayetteville, 6.58 mi. Scotland and Robeson Counties, **$164,835,** est. $125,000-$150,000***from West Constr. Co. of N. C., Kinston, 2.94 mi. Onslow Co., **$53,985,** est. $25,000-$50,000***from J. P. McGuire Constr. Co., Durham, 1.98 mi. Durham Co., **$25,677,** est. $50,000-$75,000***from Reed & Abee, Inc., Asheville, 2.47 mi. Lincoln Co., **$74,576,** est. $50,000-$75,000; 1.11 mi. Jackson Co., **$59,860,** est. $25,000-$50,000. CD 7/18—ENR 7/24.

Ohio—State Hy. Dpt., Columbus, July 29, imprv. 43.68 mi. Licking, Muskingum and Perry Counties, from C. J. Shelly, Thornville, O., **$45,728.** Est. $46,673. CD 7/17—ENR 7/24.

O., Youngstown—Mahoning Co., July 25, resurfacing 25 mi. roads from Kelly & Meyer Co., Alpine St. **$99,200.** Est. $102,000. CD 7/8—7/10.

Pennsylvania—State Hy. Dpt., I. L. Hughes, secy., Harrisburg, Aug. 1, imprv. 2,221 ft. Washington Co., from J. A. Irwin, 212 Court Office Bldg., Washington, **$29,337*****1,977 ft. Washington Co., from R. E. Furman, Waynesburg, **$34,387*****8,046 ft. Allegheny Co., from J. Kirch, Sr., 830 Brocket St., N.S., Pittsburgh, **$104,669*****18,054 ft. Northumberland Co., from Strayer & Smith, Dillsburg, **$202,289.** CD 7/22—ENR 7/24.

South Carolina—State Hy. Dpt., Columbia, July 29, imprv. 3.611 mi. Greenville Co., from B. H. Martin, Easley, **$102,780;** earth type surfacing 2.304 mi. approaches to Francis Marion Bridge, Clarendon and Orangeburg Cos., from Lokey & Anderson, Thomson, Ga. **$154,037.** CD 7/17—ENR 7/24.

★**Texas**—B. P. Gentry, chn. Hy. Comn., Austin, July 29, imprv. 2.567 mi. Angelina and Polk Counties, from R. C. Buckner, Box 609, Jacksonville, **$106,304,** est. $110,000*** 9.654 mi. Cherokee Co., from E. Field Calvert, **$51,067,** est. $50,000***7.018 mi. Dallas Co., from Austin Road Co., 1813 Clarence St., Dallas, **$65,103,** est. $65,000***7.7 mi. Kerr Co., from Vilbig Constr. Co., 817 Bourbon St., Dallas, **$39,778,** est. $40,000***10.093 mi. Jim Wells Co., from Cage Bros. and F. M. Reeves, Bishop, **$96,398,** est. $100,000***6.852 mi. Stephens Co. and 10.334 mi. McCulloch Co., from E. Loyd, Box 1077, Fort Worth, **$70,979** and **$123,353** respectively, est. $72,000 and $125,000 respectively***1.513 mi. Sutton Co., from Southern Contg. Co., 2525 Harris Blvd., Austin, **$64,213,** est. $60,000. CD 7/24.

★**Texas**—D. C. Greer, engr., State Hy. Dpt., Austin, July 30, imprv. 13.756 mi. Bell Co., from Thomas & Ratliff, Rogers, **$55,368,** est. $55,000***17.049 mi. San Jacinto and Polk Counties, from Ben Sira & Co., 3901 Elm St., Dallas, **$144,740,** est. $145,000***11.41 mi. and 0.169 mi. Navarro Co., from Wallace & Bowden, 5513½ E. Grand St., Dallas, **$70,066** and **$137,480** respectively, est. $70,000 and $140,000 respectively***12.942 mi. Houston Co., from M. De Montel, 304 W. 3 St., Tyler, **$59,247,** est. $60,000; 4.388 mi. Jackson Co., from Haden & Austin, Inc., 414 1st Natl. Bank Bldg., Houston, **$58,684,** est. $60,000***7.759 mi. Wilson Co., from Rex D. Kitchens Constr. Co., 608 W. Monroe St., Austin, **$106,534,** est. $107,000***5.074 mi. Gillespie Co. from M. E. Ruby, 813 Brown Bldg., Austin and Wallace & Bowden, 5513½ E. Grand Ave., Dallas, **$77,999,** est. $78,000***3.238 mi. Gregg Co., from Vilbig Constr. Co., 817 Bourbon St., Dallas, **$70,213,** est. $70,000***2.502 mi. Titus Co., from L. H. Lacy Co., 3009 N. Henderson St., Dallas, **$79,131,** est. $80,000***15.065 mi. Gray Co., from Bell & Braden, Herring Hotel Bldg., Amarillo, **$160,174,** est. $170,000***4.848 mi. Wood and Smith Counties, from W. S. Crawford, 4817 Montrose St., Dallas, **$65,925,** est. $66,000***4.007 mi. Jeff Davis Co., from Babcock & Miller, Fort Davis, **$49,508,** est. $50,000. CD 7/22.

†**Wash., Fort Lewis**—Con. Q.M., sidewalks (project A) at Fort Lewis proper and 41st Div. Cantonment, Inv. 6105-42-8, from Warren-Northwest, Inc., N.E. 102nd and Warren Rd., Portland, Ore. **$78,887.**

★**Wisconsin**—State Hy. Comm., Madison, July 29, imprv. 6.352 mi. Lafayette Co., from Morris Martin Company, Berlin, **$177,648** ***7.88 6 mi. Dane Co., from F. C. Ratmisch & Son, Waunakee, **$170,320*****7.318 mi. Dane Co., from P. W. Ryan Sons, Janesville, $306,522*** 15.184 mi. Dane Co., from S. J. Groves & Sons Co., 509 Wesley Temple Bldg., Minneapolis, Minn., **$563,326*****10.031 mi. Outagamie Co. and 2.378 mi. Pierce Co., from Dixon Constr. Co., Albany, **$76,350** and **$113,662** respectively***5.396 mi. Dunn Co., from J. L. & Ray Millis, Black River Falls, **$139,370*****2.679 mi. Vilas Co., from J. O'Keefe, Jr., De Pere, **$55,478*****0.494 mi. Milwaukee Co., from B. A. Froemming Co., 2927 N. Holton St., Milwaukee, **$61,846*****3.15 mi. Brown and Outagamie Counties, from Daanen & Janssen, De Pere, **$28,000** ***8.0 mi. Outagamie Co., from Lapert & Lampert, Oshkosh, **$59,818.** CD 7/10 and 7/21—ENR 7/17 and 7/24.

CONTRACTS AWARDED

Arkansas—State Hy. Dpt., Little Rock, to B. M. Hogan, 115 N. Spring St., Little Rock, Imprv. 12.2 mi. Bald Knob-Denmark Rd., White and Jackson Counties, **$130,959,** est. $140,000; 4.1 mi. Adona-Perry Rd., Perry Co., **$32,814,** est. $40,000; 3 mi. Lake Village Rd., Chicot Co., **$131,990,** est. $120,000***to Reynolds & Sutton, Conway, 3.6 mi. hy. Miller Co., **$204,065,** est. $180.000. Bids 7/3, awarded 7/31. Grand total, $499,828. State Hy. Dpt., rejected bids July 31, imprv. 2.5 mi. hy. Washington Co., $40,000. CD 7/25.

California—C. H. Purcell, engr. State Hy. Dpt., Sacramento, imprv. 2.4 mi., Mendocino Co., day labor. Bids July 16, rejected. CD 7/23—ENR 7/31 under LB.

Conn., New Canaan—Town Bd. Selectmen, penetration paving ¾ mi. Weed St., to Cerretani Constr. Co., Inc., 107 Main St., **$33,469.**

★**Georgia**—State Hy. Dpt., Atlanta, imprv. 4.217 mi. Dekalb Co., to M. J. Carroll Contr. Co., Leesburg, Fla. **$198,758*****4.494 mi. Coweta Co. and 3.338 mi. Chattooga Co., to North Ga. Constr. Co., Talmo, **$52,985** and **$55,096** respectively est. $50,000 ea.***2.673 mi. Ware Co., to Scott Constr. Co., Thomasville, **$29,112** est. $24,000***7.891 mi. Tift Co., to Crummey & Crummey, Rochelle, **$107,680** est. **$96,000*****0.676 mi. Sumpter Co., to C. H. Wheatley, Americus, **$69,315** est. $58,000*** 1.609 mi. Sumpter Co., to M. R. Woodall Co., 1594 Lakewood Ave., S.E., Atlanta, **$29,285** est. $25,000***7.096 mi. Bulloch Co., to Coffee Constr. Co., Eastman, **$118,427** est. $100,000***1.363 mi. Clayton Co., to W. L. Cobb Constr. Co., Decatur, **$28,694** est. $28,000 ***5.45 mi. Dodge Co., to Whitley Constr. Co., La Grange, **$121,894** est. $106,000***2.198 mi. Floyd Co., to Ledbetter-Johnson, Rome, **$178,-153** est. 152,000. Grand total $988,799. CD 7/11—ENR 7/17.

★†**Ga., Fort Benning**—War Dpt., 20 St. and Constitution Ave., N.W., Wash., D.C., 29 mi. graded and bituminous roads for 2nd Armored Div., to Hugh McMath, 1520-1 Ave., Columbus. **$650,032.** Bids 6/30.

Ia., Charles City—Repaving Main St. and intersecting streets, to F. Carlson Constr. Co., Decorah. **$51,325.**

Kentucky—State Hy. Dpt., Frankfort, imprv. 8.896 mi. Webster Co., to Robert M. Robinson, Owensboro, and J. B. Towles, Lexington. **$86,454.** CD 7/1—ENR 7/10.

★†**Ky., Fort Knox**—Con. Q.M., rein.-con. paving, to White Consol, Inc., 1735 Fullerton Ave., Chicago, Ill. and Breslin Constr. Co., 1801 S. Brook St., Louisville. **$579,076.**

La., Shreveport—City, July 24, imprv. Southern Ave. from St. Vincent Ave. to 59 St., to Central Constr. Co., Monroe, **$128,977.** Bids 7/22, awarded 7/28. CD 7/9—ENR 7/17.

Me., Portland—City Purchasing Agt., City Hall, bituminous concrete paving, 9,200 sq. yd. Washington St., to Warren Bros. Roads Co., 38 Memorial Dr., Cambridge, Mass. **$32,343.** Bids 7/21.

★†**Mass., Ayer**—Con. Q.M., Fort Devens, access roads, 2 highways over Nashua River and underpass under railroad 5 mi. long, to Daniel O'Connells Sons, Inc., 470 Hampden St., Holyoke, **$534,000.**

Mass., Boston—Dpt. P. Wks., City Hall Annex, bituminous concrete paving, Wood Ave., Ward 18, Hyde Park Section; Wards 11, 18, 19, 20, Jaeger Terrace, etc., to E. M. Carriere, 134 Whitford St., Roslindale, (Boston) Mass. **$33,860.** Bids 7/24.

Mass., Boston—Pub. Wks. Dpt., bituminous concrete paving, Wood Ave., Ward 18, Hyde Park Section, to Chas. Capone, 44 Wellsmere Rd., Roslindale (Boston) Mass., **$52,275.** Bids 7/24.

Neb., Omaha—D. Butler, mayor, repaving, storm sewers, Belvedere Blvd., **WPA. $72,987.**

†**N. J., Eatontown**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., excavating, grading, concrete type A or T surfacing roads, to Kingston Bituminous Products Co., Kingston, **$114,950.**

N. J., Trenton—Dpt. P. Wks., paving W. State St., to Union Paving Co., 1227 N. Broad St., Phila., Pa., **$49,500.** Est. $50,000.

†**N. C., Fort Bragg**—Quartermaster General, Wash., D. C., additional access roads, to E. W. Grannis, Fayetteville. **$378,212.** Awarded 7/25.

Ohio—State Hy. Dpt., Columbus, imprv. 2.877 mi. Hancock Co., to Robinson, Burns & Cooper Co., 337 S. High St., Columbus, **$79,-610,** est. $80,850***4.785 mi. Butler Co., to Andrews Asphalt Paving Co., 808 1st Natl. Bank Bldg., Hamilton, **$36,437,** est. $37,950*** 48.71 mi. Fairfield and Licking Counties, to C. J. Shell, Thornville, **$38,770** est. $39,092*** 67.56 mi. Hancock, Putnam and Tyandot Counties, to L. Cossett, 321 W. Front St., Findlay, **$38,841,** est. $40,148***49.2 mi. Ottawa and Wood Counties, to H. W. Bergman, Genoa, **$30,593,** est. $31,056***39.03 mi. Seneca Co., to U. S. Constr. Co., 115 E. Johnson St., Upper Sandusky, **$32,994,** est. $33,448. Grand total $257,245. Bids 7/21 State Hy. Dpt., received no bids imprv. 1.041 mi. Preble Co.; 2.982 mi. Jefferson Co. CD 7/17—ENR 7/24.

†**Oregon**—Pub. Roads Administration, 316 Postoffice Bldg., Portland, imprv. and bituminous surfacing Pendleton-John Day Highway in Malheur Natl. Forest, P 34-A3, B3, Grant Co., to A. Milne Constr. Co., 7253 N.E. Bway., Portland. **$79,806.**

★**Pennsylvania**—State Hy., Dpt., I. L. Hughes, secy., Harrisburg, imprv. 11,374 ft. hy. and grading 8,915 ft. railroad bed, 3 bridges, Dauphin Co., to Kaufman Constr. Co., 1505 Race St., Phila. **$688,313.** Bids 7/18, awarded 8/1. CD 7/21—ENR 7/24, under LB.

Pa., Allentown—G. W. Kistler, city clk., City Hall, paving 4 mi. streets, to General Paving Co., Quebec and Congress Sts., Allentown, **$144,000.** Bids 7/2. CD 6/24—ENR 6/26.

Pa., Edgewood (br. Pittsburgh)—Bd. Comrs. Allegheny Co., R. G. Woodside, controller, Pittsburgh, rein.-con. paving 2,400 ft. and 1,700 ft. retaining wall, Edgewood Ave., to McCrady Constr. Co., Investment Bldg., Pittsburgh, **$125,000.** Levi Burd Duff, County Office Bldg., Pittsburgh, engr.

S. D., McIntosh—Corson Co., F. Bieber, aud., road imprvs., **WPA. $53,427.**

Tenn., Jackson—Madison Co., A. Wilde, judge, widening, surfacing Christmasville Rd. **WPA. $75,000.**

Tex., Abilene—Taylor Co., c/o C. P. Hulsey, judge, 5/6 mi. 10 in. caliche base military access road from Hy. 84 to Camp Barkley, **WPA. $336,000.**

Tex., Center—Shelby Co., road reconstruction, paving, bridges, **WPA. $237,247.**

†**Tex., San Antonio**—Constructing Q.M., Fort Sam Houston, reconstructing roads in military area, Camp Normoyle. **WPA. $73,486.**

★**Washington**—J. A. Davis, acting Dir. Hys., Olympia, imprv. 31.353 mi., King, Snohomish nad Skagit Counties and 64.9 mi. Lewis and Cowlitz Counties, to Diesel Oil Sales Co., 2155 Northlake Ave., Seattle, **$49,487** and **$48,478** respectively***56.5 mi., Pierce, Jefferson, Clallam, Grays Harbor and Kitsap Counties, to Washington Asphalt Co., 309 N. 39 St., Seattle, **$40,841*****104.1 mi., Okanogan and Ferry Counties, to Joslin & McAllister, N. 303 Haven St., Spokane, **$33,849** ***3.58 mi., Spokane Co. to D. A. Sullivan, Box 39, Parkwater, **$49,437*****1.258 mi., King Co., to Colonial Constr. Co., W. 326 First Ave., Spokane, **$119,010*****2.84 3 mi. Lewis and Cowlitz Counties, to Graham Bros. & Medley, 974 North St., Chehalis, **$62,112*****2.64 mi. Clark Co., to Kuckenberg Constr. Co., 11104 N. E. Holman St., Portland, Ore., **$109,272** ***11.451 mi. Clark & Cowlitz Counties, to Woodworth & Cornell, Inc., 1122 East D St., Tacoma, **$478,453.** Grand total $990,939. Bids 7/15. CD 7/1—ENR 7/10.

Wyoming—Wyomnig Hy. Comn., F. Kelso, supt., Cheyenne, imprv. 5.312 mi. Campbell Co., to Inland Constr. Co., 3867 Leavenworth St., Omaha, Neb., **$85,956;** 20.993 mi. Sublette Co., to Big Horn Constr. Co., Sheridan, **$129,-468.** Bids 7/29. Rejected bids 7/29 imprv. 2.564 mi. Uinta Co. CD 7/18.

EARTHWORK, WATERWAYS

PROPOSED WORK

†**Calif., San Rafael**—U. S. Eng., 401 Customhouse, San Francisco, withdrew bids dredging 98,179 cu. yd. San Rafael Creek. Will readvertise. CD 7/28—ENR 7/31.

†**Ia., Sabula**—War Dpt., 20 St. and Constitution Ave., N.W., Wash., D. C., protection against erosion Mississippi River levees, near here. $25,000.

†**Mo., Lexington**—U. S. Eng., Kansas City, Mo., 4,840 ft. dikes and 5,800 ft. revetment in Missouri River, between Quindaro and Malta Bends, 9 mi. up stream from here. $200,000.

★†**Pa., Sunbury**—U. S. Eng., Baltimore, Md., flood control project in and near here. $1,900,000.

Tex., Wichita Falls—J. Bryan Miller, mayor, raising dam and spillway of Lake Wichita, constructing new control work. $198,000. Applied for PWA funds. F. M. Rugeley, Wichita Falls, engr.

†**Wash., Moses Lake**—Bureau Reclamation, Customhouse, Denver, Colo., dam to recap-

EARTHWORK, etc. (Proposed Work Cont'd.)

ture and impound some return flow irrigation water from Columbia Basin irrigation project.

BIDS ASKED

Bids Asked August 11

†Canal Zone—Panama Canal Comn., 1435 K St. N.W., Wash., D. C., 6,000,000 bbl. cement for Third Locks project. Extended date. CD 6/12—ENR 6/19.

Bids Asked August 14

†N. Y., Corning—U. S. Eng., Security Mutual Bldg., Binghamton, imprv. existing and new flood protective works, flood protection project, Sect. 2; adv. ENR 8/7. CD 7/24.

Bids Asked August 20

†Arizona-California — Bureau Reclamation, Denver, Colo., furnishing, del. structural steel roof framing for Parker Dam Power Project, f.o.b. cars at shipping point or f.o.b. cars at Earp, Calif.

La., Alexandria—Bd. Comrs. Red River, Atchafalaya & Bayou Bouef Levee Dist., 212 Commercial Bank Bldg., constructing 28,100 lin. ft. Saline Lake Canal, Rapides Parish.

Bids Asked August 22

†Arizona, California-Nevada—Bureau Reclamation, Denver, Colo., furnishing, del. fabricated structural steel for transmission towers and supporting structures for South California Co. switching station and transformer circuit No. 10 for Unit A-5 at Boulder switchyard, Boulder Canyon Project, f.o.b. cars at shipping point or f.o.b. cars, Boulder City.

Bids Asked August 25

†Oregon-California — Bureau Reclamation, Denver, Colo., Pumping Plant D, Modoc unit, Tule Lake Division, Klamath Project, Spec. 15-39-D.

Bids Asked August 27

†California—Bureau Reclamation, Old Post Office Bldg., Sacramento, clearing part **Shasta** Reservoir site, Kennett Div., Central Valley Project, Spec. 977; adv. ENR 8/7.

Bids Asked August 28

†Colorado—Bureau Reclamation, Customhouse, Denver, Granby Dam and dikes, Colorado Big Thompson Project, Spec. 979; adv. ENR 8/7.

Bids Asked August 29

†California—Bureau Reclamation, Old Post Office Bldg., Sacramento, station facilities, water supply and sewerage sys. for Southern Pacific R. R. Relocation, Kennett Div. Central Valley Project, Spec. 978.

†Ore., Bonneville—U. S. Eng., Pittock Blk., Portland, twelve 115 kv. oil circuit breakers etc. for Bonneville Dam Powerhouse, Inv. 698-42-55.

†Tex., Galveston—U. S. Eng., Galveston, dredging 124,000 cu. yd. material from Channel from Sta. 24 plus 00 (2400 ft. bayward from outer beacon to Sta. 66 plus 00, mouth Double Bayou); adv. ENR 8/7.

Bids Asked September 2

†Arizona-California — Bureau Reclamation, Denver, Colo., furnishing, del. transformers, oil circuit breakers, switches, lightning arresters, instrument transformers, etc., for Gila Drop 4, Tucson and Coolidge substations, Parker Power Project, Spec. 980.

Bids Asked September 3

†Wisconsin—U. S. Eng., 407 Federal Bldg., Milwaukee, removing, disposing 570,000 cu. yd. place measurement materials other than ledge rock, from channel through Sturgeon Bay northwesterly from portion Sturgeon Bay and Lake Michigan Ship Canal; adv. ENR 8/7.

LOW BIDDERS

★**†California**—Bureau Reclamation, Old Post Office Bldg., Sacramento, Aug. 1, Keswick Dam, Kennett Div., Central Valley Project, Spec. 960, from G. F. Atkinson, Russ Bldg., San Francisco, and W. E. Kier Constr. Co., 747 3 St., San Diego. **$2,736,628.** CD 7/21.

Calif., San Francisco—Pub. Utilities Comn., City Hall, July 29, replacing spillway and connection flumes at San Mateo Dam 1, WD 304, from M. J. Lynch, Barneveld and Oakdale Sts., **$27,846.** CD 7/21.

Calif., Sunol—Pub. Utilities Comn., City Hall, July 29 welded steel pipe supply line and tank for Sunol Irrigation and Domestic Water Sys., WD 296R, for City and County of San Francisco, from San Francisco Water Dpt., 425 Mason St., San Francisco, **$16,013.** CD 7/21.

†Idaho—Bureau Reclamation, Boise, July 28, relocation Idaho Northern branch of Oregon Short Line railroad between Cascade and Donnelly, Spec. 974, from J. L. McLaughlin, Great Falls, Mont. **$481,523.** CD 7/3—ENR 7/10.

Ill., Rock Island—Dpt. P. Wks. & Buildings Div. Waterways, 201 W. Monroe St., Springfield, July 29, 600 ft. rein.-con cantilever retaining wall, Mississippi River, from C. E. Carson Co., 601 N. St. Clair St., Chicago. **$144,377.** CD 7/21—ENR 7/24.

★**†Indiana**—U. S. Eng., P. O. Box 59, Louisville, flood protection works, East Sect. Unit 1, Jeffersonville, Clark Co., from Robert R. Anderson Co., 625 N. Kedzie Ave., Chicago, Ill. **$1,202,595.** CD 6/24—ENR 6/26.

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, July 28, dredging 325,000 cu.yd. material from Bayou LaFourhe in Mississippi-Atchafalaya Sect. Intra-Coastal Waterway between Lockport and Larose, from Shell Producers Co., 115 S. Water St., Tampa, Fla. **$104,000.** CD 7/9—ENR 7/17.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, June 17, dredging 120,000 cu.yd. material from Drum Inlet, from C. W. Hodges Dredging Co., Inc., New Bern. **$15,360.** Est. $30,524. CD 5/19—ENR 5/22.

†North Carolina—U. S. Eng. Office, Wilmington, July 22, dredging 270,000 cu. yd. material from channel from Manteo to Oregon Inlet, from Norfolk Dredging Co., Campostella Wharf, Norfolk, Va. **$51,840.** CD 7/8—ENR 7/10.

★**†O., Cincinnati**—U. S. Eng., Federal Bldg., Mill Creek Valley Barrier Dam, from Spencer, White & Prentis, 10 E. 40 St., New York, N. Y., **$2,793,814.**

★**†O., Portsmouth**—U. S. Eng., Federal Bldg., Cincinnati, July 29, Portsmouth-New Boston flood wall, from Minneapolis Dredging Co., University St. and 25 Ave. S. E., Minneapolis, Minn. **$1,115,404.** CD 7/22—ENR 7/24.

CONTRACTS AWARDED

Colo., Colorado Springs—City and El Paso Co., flood control works, on Fountain Creek, WPA. **$149,564.**

★**† Ky., Jamestown**—U. S. Eng., Customhouse, Nashville, Tenn., cement for Wolf Creek Dam Cumberland River, to Louisville Cement Co., 315 Guthrie St., Louisville, **$1,093,920,** and Alpha Portland Cement Co., 1st Natl. Bank Bldg., Easton, Pa., **$1,710,200.** CD 7/28—ENR 7/31, under CA.

†Mo., Waverly—U. S. Eng., 601 Davidson Bldg., Kansas City, 1,640 ft. pile dikes in Missouri River between Crooked River and Teteseau Bends, hired labor and govt. plant. **$28,000.** CD 7/18—ENR 7/24.

†Texas—U. S. Eng., Federal Bldg., Galveston, dredging Louisiana-Texas Intracoastal Waterway, to Gulf Coast Dredging Co., Texas City. **$134,748.** CD 5/14—ENR 5/22.

†Washington—Bureau Reclamation, Denver, Colo., three 150,000 hp. turbines, Grand Coulee Power Plant, to Newport News Shipbuilding & Dry Dock Co., Newport News, Va., **$1,880,000.** CD 7/25—ENR 7/3.

★**Washington** — Bureau Reclamation, Customhouse, Denver, Colo., three 108,000 kw. generators for Grand Coulee power plant, Spec. 967, to Westinghouse Electric & Mfg. Co., Union Bank Bldg., Pittsburgh, Pa. **$2,697,785.** CD 7/15—ENR 7/17, under Odair, Wash.

Ont., Hamilton—Secy. Dpt. P. Wks., Ottawa, dredging Ottawa St. approach, slip and turning basin, to J. P. Porter & Sons, Ltd., 1010 St. Catherine St., W., Montreal, Que. **$49,000.** Bids 7/7. CD 7/2.

UNCLASSIFIED

PROPOSED WORK

List of 288 airports on CAA program received after this section closed, will be found on page 7 of this issue.

Alabama — RURAL ELECTRIC LINES — Tombigbee Electric Co-operative, R. L. Pennington, pres., Vernon, 420 mi. rural electric lines, Lamar and Marion Counties. $400,000 REA allot.

Ark., North Little Rock—FIRE PROTECTION, etc.—Fire protection, waterworks, Park-Hill,Levy sect. $166,000.

Calif., Wasco—SWIMMING POOL—Wasco Union High School Dist., bond election Aug. 19, swimming pool. $45,000. CD 7/22—ENR 7/31.

Conn., Darien—DAM, etc.—Towns of Darien and Stamford Bd. Selectmen, Town Hall, Darien, preliminary surveys dredging, retaining wall and dam, Cove Pond, on Darien-Stamford line. $25,000. Fay, Spofford & Thorndike, 11 Beacon St., Boston, Mass., engrs.

Fla., Gainesville—AIRPORT—Enlarging airport and lighting sys. $169,000. CAA.

Fla., Jacksonville — AIRPORT—Bids soon airport imprvs., exten. E & W runway, and NW-SE runway. $188,000. CAA. W. E. Shedden, Jacksonville, city engr.

★**Fla., Jacksonville**—SHIPYARD—Jacksonville Shipbuilding Co., 17 Battery Pl., New York, N. Y., will not construct shipyard, 25 shipways and 200 buildings, near here, 25,000,000. Project abandoned. J. M. Rice, Grant Bldg., Pittsburgh, Pa., ch. engr. Young & Croasdell, Masonic Bldg., consult. engrs. CD 4/18—ENR 4/24.

Fla., Lake City — AIRPORT — Enlarging, imprv. airport. $162,000. CAA.

†Idaho, Lewiston—AIRPORT—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., defense airport.

Illinois—RURAL ELECTRIC LINES—Edgar Electric Co-operative Assn., W. L. Walker, supt., Paris, 299 mi. rural electric lines, Edgar, Clark, Douglas and Coles Counties. $288,000 REA allot.

Illinois—RURAL ELECTRIC LINES—Southern Illinois Electric Co-operative, G. W. Endicott, mgr., Dongola, 150 mi. rural electric lines, Union, Alexander, Massac, Pope, Pulaski and Johnson Counties. $144,000 REA allot.

Indiana—RURAL ELECTRIC LINES—Southeastern Indiana REMC, F. E. Ratts, supt., Osgood, 359.8 mi. rural electric lines, Ripley, Dearborn, Franklin, Ohio, Switzerland, Jennings and Jefferson Counties. $[illegible]000 REA allot.

Iowa—RURAL ELECTRIC LINES—Allamakee-Clayton Electric Co-operative, [illegible], K. M. James, supt., Postville, 447 mi. rural electric lines, Allamakee, Clayton, Fayette and Winneshiek Counties. $370,000 REA allot.

Iowa — RURAL LINES — Pocahontas Co. Rural Electric Co-operative, Pocahontas, 95 mi. rural electric transmission lines, Pocahontas and Palo Alto Counties. $77,000.

Iowa—RURAL ELECTRIC LINES—Rideta Electric Co-operative, Inc., C. C. Brimmer, pres., Mt. Ayr, 263 mi. rural electric lines, Ringgold, Union and Decatur Counties. $254,000 REA allot.

Ia., Sac City—SWIMMING POOL, etc.—Municipal swimming pool, bathhouse. $25,000.

Kansas — TRANSMISSION LINES — Co-operative Power & Light Co., Inc., [illegible] Cleneden, supt. Iola, 234.62 mi. transmission lines. $207,000 REA allot. Paulette & Wilson, 1006 Kansas St., Topeka, engrs.

Kentucky — RURAL ELECTRIC LINES—Licking Valley Rural Electric Co-operative Corp., K. H. Risner, Coordinator, West Liberty, 62 mi. rural electric lines, Morgan, Breathitt, Magoffin and Wolfe Counties. $65,000 REA allot.

Louisiana — RURAL ELECTRIC LINES—Beauregard Electric Co-operative, Inc., R. J. Davis, supt., DeRidder, 212 mi. rural electric lines, Beauregard, Allen and Vernon Parishes. $200,000 REA allot.

★**†La., New Orleans**—SHIPBUILDING FACILITIES—Todd-Johnson Dry Docks, Inc., Hinds Lane Wharf, New Orleans, shipbuilding facilities, for Navy Dpt. $2,696,400 for land and buildings, $443,600 for machinery and equip. Defense Plant Corp. will finance.

★**†Md., Baltimore**—SHIPBUILDING FACILITIES—Maryland Dry Dock Co., Fairfield, Baltimore, shipbuilding facilities, for Navy Dpt., $3,393,190; for land and buildings, $501,066 for machinery and equip. Defense Plant Corp. will finance.

†Mass., Chicopee Falls—RUNWAYS—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., bids soon paved runways, grading, subgrading, constructing 17,400 ft. rein.-con. runways, 150 ft. wide, rein.-con. box inlets, etc. Westover Field for Army Air Corp.

Minnesota — RURAL ELECTRIC LINES—P.K.M. Electric Co-operative, Inc., V. M. Edman, pres., Warren, 377 mi. rural electric lines, Polk, Marshall and Kittson Counties. $292,000 REA allot.

Mississippi—RURAL ELECTRIC LINES—Capitol Electric Power Assn., E. L. Phillips, supt., Clinton, 95 mi. rural electric lines, Madison, Hinds, Copiah, Rankin, Warren and Claiborne Counties. $70,000 REA allot.

Mississippi—RURAL ELECTRIC LINES—Delta Electric Power Assn., L. C. Spencer, supt., Greenwood, 200 mi. rural electric lines, Bolivar, Leflore, Grenada, Washington, Sunflower, Carroll, Tallahatchie, Montgomery Holmes and Webster Counties. $160,000 REA allot.

Miss., Greenwood—AIRPORT—S. R. Kessler, mayor, imprv., extend. airport. $50,000. C. G. Abbott, Greenwood, engr.

Missouri — RURAL ELECTRIC LINES—White River Valley Electric Co-operative, Inc., F. A. Dawes, supt., Hollister, 229 mil rural electric lines, Taney, Christian, Douglas, Ozark and Stone Counties. $237,000 REA allot.

Mo., St. Louis—STEAM LINE, etc.—C. E. Ellaby, pres. Bd. Pub. Serv., City Hall, replacing steam line from power house to City Sanitarium, 5300 Arsenal St., incl. underground wiring changes, manhole, drainage, Kingshighway and Lindell Blvds. $28,100. Dpt. P. Utilities, M. Doyne, Dir., City Hall, engr.

Nebraska — RURAL ELECTRIC LINES—McCook Public Power Dist., W. L. Search, pres., McCook, 101 mi. rural electric lines Redwillow, Frontier and Hitchcock Counties. $124,000 REA allot. Henningson Eng., Co., Standard Oil Bldg., Omaha, engrs. CD 5/28.

Neb., Fremont—SWIMMING POOL, etc.—A. J. Forman, city clk., $29,000 bond election Aug. 22, swimming pool, bath houses, parking, landscaping. $50,000. CD 5/7—ENR 6/15.

★**†N. J., Hoboken**—SHIPYARD FACILITIES—Tietjen & Land Dry Dock Co., 17 St. and Park Ave., shipyard facilities, for Navy Dpt., $5,385,000, for land and buildings, $365,000 for machinery and equip. Defense Plant Corp. will finance.

New York—POWER LINES, etc.—Steuben Electric Assn., Inc., A. Seaman, pres. Hornell, c/o Bernice Shautt, secy., Bath, rural electric power and light lines, distr. systems, etc., Steuben Co. Application to REA soon.

New York—RURAL ELECTRIC LINES—Delaware Electric Assn., Inc., Walton, 100 mi. or more rural electric lines, Delaware Co. Over $75,000.

★**†N. Y., New York**—SHIPBUILDING FACILITIES—Robins Dry Dock & Repair Co., Erie Basin, Brooklyn, shipbuilding facilities for Navy Dpt. $3,152,000 for land and buildings; $298,000 for machinery and equip. will finance. Defense Plant Corp.

North Carolina—RURAL ELECTRIC LINES—Blue Ridge Electric Memb. Corp., Lenoir, 311 mi. rural lines Caldwell, Ashe, Alexander, Watauga and Alleghany Counties. $311,000; imprv. lines constructed by Utilities Co. $150,000. REA allot.

UNCLASSIFIED (Proposed Work, Cont'd.)

North Carolina — TELEPHONE LINES — Heins Telephone Co., Sanford, and Central Carolina Telephone Co., Southern Pines, 18 mi. toll line between Sanford and Carthage, Lee and Moore Counties.

North Carolina—RURAL ELECTRIC LINES—Pee Dee Electric Membership Corp., Wadesboro, 104 mi. rural electric lines, Anson, Union, Montgomery, Richmond and Scotland Counties. $100,000. REA allot.

N. C., Rockingham—AIRPORT—W. H. Entwistle, mayor, airport, midway between here and Hamlet. $80,000. Preparing application for WPA funds.

★**O., Portsmouth**—RAILROAD—Norfolk & Western R.R. Co., W. P. Wiltsee, ch. engr., Roanoke, Va., 18 new tracks, Portsmouth yards, $600,000.

Oregon — RURAL ELECTRIC LINES — Blachly-Lane County Co-operative Electric Assn., F. N. Savage, supt., Blachly, 98 mi. rural electric lines, Lane and Benton Counties. $110,000. REA allot.

Oregon—RURAL ELECTRIC LINES—Coos Electric Co-operative, Inc., R. J. Connarn, supt., Coquille, 152 mi. rural electric lines, Coos and Curry Counties. $224,000 REA allot.

Oregon—RURAL ELECTRIC LINES—North Douglas Electric Co-operative, Inc., R. L. Adams, supt., Roseburg, 323 mi. rural electric lines. $380,000 REA allot.

South Carolina—RURAL ELECTRIC LINES—Palmetto Electric Co-operative, Inc., J. M. Perry, pres., Hampton, 226 mi. rural electric lines, Hampton, Jasper and Beaufort Counties. $153,000 REA allot.

†**S. C., Aiken**—AIRPORT—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., imprv. airport. $392,000.

†**S. C., Beaufort**—AIRPORT—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., imprv. airport. $200,000.

†**S. C., Waltersboro**—AIRPORT—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., imprv. airport. $322,000.

South Dakota—TRANSMISSION LINE—Lake Region Electric Assn., Webster, 488 mi. rural electric transmission lines. $300,000. Banister Eng. Co., 1586 University Ave., St. Paul, Minn., engr.

S. C., Hampton—RURAL ELECTRIC LINES—Palmetto Electric Co-operative, 226 mi. lines, Hampton, Jasper and Beaufort Counties. $153,000.

Tenn., Greenville—AIRPORT—W. H. Whitis, mayor, airport.

★**Texas and Georgia**—OIL PIPELINE—Trans-American Pipe Line Corp., Waggoner Bldg., Fort Worth, Tex., 16 in. steel, crude oil pipeline carrier between Wichita Falls, Tex. and Savannah, Ga. $24,500,000.

Texas and Oklahoma—OIL PIPELINE—Bell Oil & Gas Co., Natl. Bank of Tulsa Bldg., Tulsa, Okla., 35 mi. 4 in. steel crude oil pipeline to connect with gathering sys. from Vernon, Tex., to Grandfield, Okla. $80,000.

Texas and Oklahoma — PIPELINE — Shell Pipe Line Corp., Henrietta, and Fort Worth, 55 mi. pipeline between point south of Henrietta, Tex. to Ryan, Okla. $85,000.

Texas—RURAL ELECTRIC LINES—Fort Belknap Electric Co-operative, Inc., T. H. Wilkinson, supt., 208 mi. rural electric lines, Throckmorton, Young, Archer and Shackelford Counties. $137,000 REA allot. J. E. Ward, Harvey-Snider Bldg., Wichita Falls, engr.

Texas—RURAL ELECTRIC LINES—Hill County Electric Co-operative, Inc., E. D. H. Farrow, supt., Itasca, 54 mi. rural electric lines, Dallas, Ellis, Hill and McLennan Counties. $38,000 REA allot. Freese & Nichols, Capps Bldg., Fort Worth, engrs.

Texas—RURAL ELECTRIC LINES—Hunt-Collin Electric Co-operative, Inc., E. T. Fry, supt., Greenville, 47 mi. rural electric lines, Hunt and Collin Counties. $30,000 REA allot.

Texas—RURAL ELECTRIC LINES—Kaufman County Electric Co-operative, J. McCullough, supt., Kaufman, 113 mi. rural electric lines, Kaufman, Van Zandt, Hunt and Henderson Counties. $88,000 REA allot. Freese & Nichols, Capps Bldg., Fort Worth, engrs.

Texas—RURAL ELECTRIC LINES—Lyntegar Electric Co-operative, Inc., G. L. Pennington, mgr., Tahoka, 230 mi. rural electric lines, Borden, Dawson, Garza, Hockley, Lubbock, Lynn, Martin, Terry and Yoakum Counties. $130,000 REA allot.

Tex., Corpus Christi—RECREATION CENTER—A. C. McGaughan, mayor, plans by Hamon & Co., Jones Bldg., recreation center (Tex. 41-154). $80,000. Applied for PWA funds. CD 6/19—ENR 6/26.

Tex., Mineral Wells—AIRPORT—Unit 1, airport. $300,000.

Tex., Palacios—RECREATION PARK—J. L. Deutch, mayor, plans by C. O. Chromaster, 401 Century Bldg., Fort Worth, recreation park, tennis courts, beach, picnic, grounds, promenade, etc. $250,000. Application filed with PWA.

★**Tex., Pelly**—TUNNEL—Concrete tunnel under ship channel. $750,000. Hedrick & Lindsley, 818 S. Std. Bldg., Houston, engrs.

★†**Virginia** — RAILROAD LINE — Yards & Docks, Navy Dpt., Wash., D. C., 25 mi. railroad line from Naval Proving Ground, Dahlgren to connect with R. F. & P. R. R. Fredericksburg. $1,500,000.

Washington—RURAL ELECTRIC LINES—Public Utility Dist. 1 of Klickitat Co., J. S. Degman, pres., White Salmon, 404 mi. rural electric lines. $450,000 REA allot.

Wash., Bremerton—RECREATIONAL CENTER—Recreational center to serve Puget Sound Navy Yard. $100,000.

†**Wash., Bremerton**—RIFLE RANGE—Navy Dpt., 18 and Constitution Ave. N.W., Wash., D. C., rifle range, 13th Naval District Barracks and Officers' Quarters. $90,000.

Wash., Bremerton—RUNWAY—Kitsap Co., Courthouse, Port Orchard, additional runway, airport, $205,000. CAA.

Wash., Port Angeles—AIRPORT IMPROVEMENTS—Clallam Co., Courthouse, airports imprvs. CAA. $22,000. J. Lay, Courthouse, engr.

Wash., Dayton — ELECTRIC DISTRIBUTION LINES—Columbia Co. Electric Co-operative, Dayton, 100 mi. exten. rural electric distr. sys. $100,000.

★†**Wash., Manchester** — UNDERGROUND FUEL DEPOTS—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., underground fuel depots for oil, Middle and Orchards Points, on Puget Sound. $1,500,000.

†**Wash., Oak Harbor**—AIR STATION—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., clearing, grubbing, grading site for new Naval Air Station. $300,000.

Wash., Olympia—BOAT WAYS—Lewis Steel Constr. Co., A. Lewis, pres., 2 boat ways, 1 barge way, for shipbuilding. $25,000.

Wash., Olympia—RECREATIONAL CENTER—Recreational center for soldiers from Fort Lewis. $75,000. Federal funds sought. C. H. Williams, City Hall, engr.

★†**Wash., Seattle**—DRYDOCK—Todd Seattle Dry Docks, Inc., 1801 16 Ave. S.W., bids in August, 90x410 ft. drydock. $1,000,000. Defense Plant Corp. will finance.

★**Wash., Seattle**—PIERS, etc.—Port of Seattle, Bell St. Terminal, two 120x800 ft. earthfill piers, berthing slips, 1,000 ft. long, between Connecticut and Charles Sts. $5,500,000. Col. W. C. Bickford, c/o owner, engr. RFC loan sought.

†**Wash., Seattle**—NAVAL AIR STATION—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., exten. assembly and repair facilities, Sand Point Naval Air Station. $50,000.

Wash., Spokane — RUNWAY — Bids soon, 5,000 ft. runway, Felts Field. $190,000. CAA.

Wash., Tacoma—PARKS—Metropolitan Park Dist., expansion of parks. $100,000.

Wash., Tacoma—RECREATIONAL CENTER—Recreational center. $200,000. Federal funds sought.

Wisconsin—RURAL ELECTRIC LINES—Washington Island Electric Co-operative, Inc., G. O. Mann, pres., Washington Island, 26 mi. rural electric lines, Door Co. $40,000 REA allot.

Wisconsin—RURAL ELECTRIC LINES—Waushara County Electric Co-operative, Inc., E. E. Stickney, supt., Wautoma, 295 mi. rural electric lines, Waushara, Adams, Green Lake, Waupaca and Marquette Counties. $231,000 REA allot.

Wyoming—RURAL ELECTRIC LINES—Hot Springs County Rural Electrification Assn., C. H. Gardner, pres., Thermopolis, H. S. Nixon, Grain Exch. Bldg., Omaha, Neb., engr. 87.25 mi. rural electric lines, Hot Springs Co. $88,000 REA allot.

Wyoming—TRANSMISSION LINES—Jackson Hole Rural Electric Assn., Jackson, preliminary plans 75 mi. of transmission lines. $65,000. H. S. Nixon, Grain Exch. Bldg., Omaha, Neb., engr. Will apply to REA.

★†**Alaska, Kodiak**—AIR STATION—Navy Dpt. 18 St. and Constitution Ave. N. W., Wash., D. C., additional aviation facilities, buildings, accessories, Naval Air Station. $3,266,000.

★†**Alaska, Kodiak**—PIERS—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C. additional piers for submarine base. $640,000.

†**Alaska, Kodiak**—NAVAL AIR STATION—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., gatehouse and fence, Naval Air Station. $50,000.

Alaska, Kodiak—RURAL ELECTRIC LINES—R. H. Chadwick, mayor, 15 mi. rural electric lines, $75,000 REA allot.

★**Ont., Amherley**—AIR TRAINING BASE—Secy. Dpt. Transport, Ottawa, Ont., bids soon air training base. $200,000 for field development $400,000 for various buildings.

Que., Lauzon—DOCK — Davie Shipbuilding & Repairing Co. bids soon repairing, extend. dock. $125,000.

BIDS ASKED

Bids Asked after August 5

Iowa — TRANSMISSION LINES — Rideta Electric Co-operative, Inc., C. C. Brimmer, pres., Mt. Ayr, 263 mi. transmission lines. $254,000 REA allot. K. R. Brown, 802 VB Bldg., Des Moines, consult. engr. CD 7/31.

Bids Asked August 11

Alta., Wainwright—COAL DOCK—J. W. Porter, ch. engr. (western region), Canadian National Rys., Winnipeg, Man., 300 ton mechanical coal dock and sand pocket. About $75,000.

Man., Winnipeg—COAL DOCK—J. W. Porter, ch. engr. (western region), Canadian National Rys., 300 ton mechanical coal dock, with sand pocket. About $75,000.

★**Que., Mont Joli**—BOMBING SCHOOL—Secy. Dpt. Munitions & Supply, Ottawa, Ont., 42 temporary buildings, 5 double landplane hangars, officer's and men's quarters, hospital, dental clinic, supply depot, etc. Bombing and Gunnery School, for Dpt. National Defense for Air, Ottawa, Ont. $800,000.

Sask., Kimberley—COAL DOCK—J. W. Porter, ch. engr. (western region), Canadian National Rys., Winnipeg, Man., 200 ton mechanical coal dock with sand pocket.

Sask., Watrous—COALING PLANT—Canadian National Rys., J. N. Porter, ch. engr., Winnipeg, Man., 300 ton mechanical coaling plant, sand pocket, etc. $60,000.

Bids Asked August 12

N. Y., New York—DUMPING BOARD—At office President Manhattan Boro, Municipal Bldg., completion Contr. 9C, general contract sanitation dumping board E. 60 St., East River Dr., imprvt., E. 40 to E. 99 Sts. Extended date. CD 7/29—ENR 7/31.

Bids Asked August 18

Calif., Los Angeles—CONDUIT LINE—Dpt. Water & Power, 207 S. Bway., 12,449 ft. 7 duct underground conduit line, for electric power transmission from Harbor Steam plant to Receiving Station C Spec. 3835. Over $25,000. H. C. Gardett, 207 S. Bway., engr.

Bids Asked August 28

South Carolina—ELECTRICAL FINISHING WORK—S. C. Pub. Serv. Auth., Charleston, finishing structures, lighting, miscellaneous details, Santee-Cooper Project, Docket 4329 P-R. $100,000. Harza Eng. Co., 27 Cumberland St., Charleston, engrs.

Bids Asked August 29

†**Ore., Portland**—OIL CIRCUIT BREAKERS—U. S. Eng., 628 Pittock Blk., furnishing oil circuit breakers, etc., for Bonneville Dam powerhouse, Inv. 698-42-55.

Bids Asked

†**Calif., Moffett Field**—WIND TUNNEL—National Advisory Com. for Aeronautics Ames Laboratory, Moffett Field, 40x80 ft. wind tunnel. Extended date. CD 7/23—ENR 7 31.

★**Texas and Illinois**—OIL CARRIER LINE—Texas Co., 332 S. Michigan Ave., Gulf Refining Co., 230 N. Michigan Ave., Shell Oil Co., 624 S. Michigan Ave., Tidewater Co., 230 N. Michigan Ave., all of Chicago, Ill., Atlantic Refining Co., 85 Doremus Ave., Newark, N. J., Standard Oil Co. of N. J., 26 Bway., New York, N. Y., et al, 20 in. steel welded joint crude oil carrier line from point near Kilgore, Tex. to Nashville, Ill., also 16 in. similar type carrier between Wood River and Nashville, Ill. Est. $70,000,000.

LOW BIDDERS

†**Mich., Detroit**—AIRPORT BUILDINGS—U. S. Eng., Wash., D. C., 9 buildings, incl. shops, storage buildings, barracks, inspection buildings, Wayne County Airport, near here, from Owen-Ames-Kimball Co., 38 Pearl St. N.W., Grand Rapids, **$77,600.**

New Jersey—TUNNEL APPROACH—Port of New York Auth., F. C. Ferguson, chn., 111 8 Ave., New York, N. Y., July 29, permanent paving New Jersey approach Lincoln Tunnel. Contrs. MHT-80-A, and MHT-80-C, from Geo. A. Brewster & Son, Inc., 275 W. Ft. Lee Rd., Bogota, N. J., **$96,983** and **$54,913** respectively; Contr. MHT-80-B, from Clinton Asphalt Co., 308 16 St., Union City, **$54,003.** CD 7/14—ENR 7/17.

N. Y., Brooklyn — SUBSTATIONS — Bd. Transportation, 250 Hudson St., July 29, substations and signal tower for part of Rapid Transit R.R. (Culver Line), from Federal Constr. Corp., Bedford Ave. and Glenwood Rd., **$241,283** (unofficial).

N. Y., New York—FREIGHT SHED, etc.—President Manhattan Boro, Municipal Bldg., July 28, general contract Lehigh Valley R.R. freight shed, from Rice Constr. Co., 41-50 35 St., Long Island City, **$96,000.** CD 7/21—ENR 7/24.

N. Y., New York—LIGHTING SYSTEM—Comr. Water Supply, Gas & Electricity, Municipal Bldg., July 28, lighting sys. Hutchinson River Parkway exten., Eastern Blvd., from Broadway Maintenance Corp., 47-47 35 St., Long Island City, **$138,500.** CD 7/23.

†**S. C., Columbia**—PARKING AREA—Con. Q.M., Fort Jackson, July 26, parking area for trucks and big guns, Spec. 6103-42-3, from C. G. Fuller, Barnwell, **$179,797.**

†**Wash., Fort Lewis**—SPORTS ARENA—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., July 31, sports arena, from Harry Boyer Sons & Co., D and N. Washington Sts., Olympia, **$63,880.**

CONTRACTS AWARDED

Ala., Decatur—FLYING SCHOOL—Southern Airways, Inc., Municipal Airport, Birming-

UNCLASSIFIED (Contracts Awarded, Cont'd.)

ham, flying school, barracks, hangars, grading, paving, to N. C. Morgan Constr. Co., Decatur.

Ariz., Phoenix—HANGARS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., 3 temporary hangars Military Airport, to Del E. Webb Constr. Co., 1633 W. Jefferson St. Phoenix. **$209,769.**

†Calif., Bakersfield — TRACKAGE, etc. — U. S. Eng., 208 Postoffice Bldg., Sacramento, trackage, water, gas and sewerage sys., Flying Field 12, near Lerdo Station, to Louis Franceschi, 465 Avila St., San Francisco, **$341,987.**

Ga., Augusta—GASOLINE STORAGE SYSTEM—Gasoline storage sys. municipal airport, to Ivy H. Smith Co., Barnett Bldg., Jacksonville, Fla. **$102,445.** Awarded 7/26.

Kan., Iola—AIRPORT—W. W. Perham, mayor, airport, hangars, shop, administration building, landing area, taxi apron, sanitary facilities, **WPA. $115,315.** CD 12/24—ENR 1/9.

†Md., Aberdeen—SMALL ARMS RANGE—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., small arms range, to State Contg. Co., 3600 Roland Ave., Baltimore, **$31,000.**

★**Michigan, Kansas** and **Texas**—PIPELINE—Panhandle Eastern Pipe Line Co., 4002 Commerce St., Dallas, Tex., furnishing pipe for 405 mi. natural gas line between Michigan, Kansas and Texas, to A. O. Smith Corp., 3533 N. 27 St., Milwaukee, Wis. **$4,633,000.** CD 7/14—ENR 7/17.

New Jersey—PARK IMPROVEMENTS—Essex Co. Park Comn., 115 Clifton Ave., Newark, excavating, grading, landscaping, etc. parks, **WPA. $57,500.** CD 7/23—ENR 7/31.

N. J., Bayonne—PLAYGROUND, etc.—Playground with recreation fields, roads, grading, etc., **WPA. $129,949.** CD 7/22—ENR 7/24.

★**North Carolina**—GENERATING FACILITIES—Jones-Onslow Electric Membership Corp., Jacksonville, steam generating plant on Neuse River and east side Slocumbs Creek, 15 mi. from New Bern, to Gibbs & Hill, 600 N. 2 St., Harrisburg, Pa. Est. **$1,200,000.** CD 7/16—ENR 7/24.

★**†N. C., Cherrypoint**—MARINE CORPS AIR BASE—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Marine Corps Air Base, to T. A. Loving & Assoc., Goldsboro. Est. **$14,145,000.** J. E. Greiner Co., 1201 St. Paul St., Baltimore, Md., engr.

★**†N. C., Elizabeth City**—DIRIGIBLE BASE—Navy Dpt. 18 St. and Constitution Ave. N.W., Wash., D. C., lighter than air dirigible base, to J. A. Jones Constr. Co., 209 W. 4 St, Charlotte. Est. **$6,500,000.** CD 5/6—ENR 5/8.

Okla., Stillwater — AIRPORT IMPROVEMENTS—City, c/o O. Whipple, Stillwater, moving approx. 525,000 cu. yd. earth in connection with airport imprv. project, to List & Clark Constr. Co., Railway Exch. Bldg., Kansas City, Mo., **$77,175.** Bids 6/27, awarded 7/15.

Okla., Stillwater — AIRPORT — O. C. Whipple, mayor, airport imprvs., **WPA. $193,000.**

Pennsylvania — PARK — Dpt. Forests & Waters, Harrisburg, developing 10,000 acre park, roads, walks, grading, landscaping, etc. North Mountain, Luzerne, Wyoming and Sullivan Counties, own forces. **$150,000.** CD 6/30—ENR 7/3.

Pa., Harrisburg—HANGAR, etc.—U. S. Eng., 332 Post Office Bldg., Baltimore, Md., hangar and boiler house, municipal airport, to George H. Evans & Co., 1126 Fairmont Ave., Phila. **$99,165.** Bids 7/28. CD 7/16—ENR 7/24.

Pa., Marshburg (P. O. Custer City)—OIL DEVELOPMENT—Forest Oil Corp., Forest Oil Bldg., Bradford, extensive development crude oil properties, drilling wells, water flood pressure plants, gathering and connecting pipelines, etc., own forces and separate contracts. **$60,000-$75,000.**

Pa., York—AIRPORT—B. J. LaMotte, 233 W. Bway., Red Lion, airport on 30 acre site, Lincoln Hy., east of here, day labor and separate contracts. **$25,000.** CD 7/28—ENR 7/31.

R. I., Pascoag—RACE TRACK—Burrillville Racing Assn., B. A. Dario, 531 Main St., Pawtucket, race track, grandstand, stables, steward's stands, clubhouse, landscaping, etc., to Pelletier Constr. Co., 173 Bailey St., Woonsocket, R. I. Est. **$150,000.** CD 7/24—ENR 7/31.

★**S. C., Columbia**—RUNWAYS—U. S. Eng., Columbia, 2 runways, taxiways, Lexington Co. municipal airport, to C. G. Fuller Co., Barnwell, S. C., **$633,335.** CD 5/23.

S. C., Orangeburg—AERONAUTICS SCHOOL—Hawthorne School for Aeronautics, 8 bldgs., incl. barracks, hangar, administration bldg., recreation center, mess halls, class room bldgs., to Southeastern Constr. Co., The Citadel, 888 King St., Charlotte, N. C. H. Tatum, 34 Broad St., Charleston, archt. CD 7/23—ENR 7/31.

Tenn., Memphis—BARGE TERMINAL—Lion Oil Rfg. Co., El Dorado, Ark., barge terminal, storage facilities, pipe lines, tankage, fire protection, etc. **$150,000.** Owner builds.

★**†Tenn., Paris** — BARRAGE BALLOON TRAINING CENTER—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., barrage balloon training center, repairs, incl. 408 buildings, roads, fencing, utilities, to Rock City Constr. Co., 135 4 Ave. N., and T. M. Strider Co., Cotton States Bldg., both Nashville, **$5,254,968.** R. H. Hunt Co., Chattanooga Bank Bldg., Chattanooga, archts. and engrs.

Tex., Ballinger—AIRPORT BUILDINGS—F. Harmon, San Marcos civilian air training school, barracks, hangars, shop utilities, etc., to J. B. Pirtle, 3015 Latimer St., Dallas, **$70,933.** Est. $110,000. Phelps & De Wees & Simmons, c/o Majestic Bldg., San Antonio, archts. CD 7/16—ENR 7/31.

Tex., Fort Worth—HANGAR—S. H. Bothwell, city mgr., 2 story, 23x378 ft., hollow tile, stucco, hangar, and shop, for Meacham Field, to J. W. Padgett, 3616 Townsend Dr. **$41,333.** Est. $60,000. CD 7/16—ENR 7/31.

Tex., Gilmer — TRANSMISSION LINES — Owner, c/o S. Scales, Gilmer, 284 mi. 3,300 volt transmission lines, to Sandberg & Johnston Constr. Co., Hampton, O. **$474,755.** Est. $500,000. Freese & Nichols, Capps Bldg., Fort Worth, engr.

†Wash., Fort Lewis—FENCING, etc.—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., chain link fence and gates, illimination sys., electric distr. exten., to Cyclone Fence Div. American Steel & Wire Co., 1936 First Ave. S., Seattle, **$184,450.**

★**West Virginia and Ohio**—PIPE LINE—Anchor-Hocking Glass Corp., 109 N. Broad St., Lancaster, O., 40 mi. 12 in. seamless pipe gas line, booster stations, connecting Sandyville, W. Va., with Lancaster, O., to Jones Brooks Co., Ins. Bldg., Oklahoma City, Okla., **$998,330.** Midwestern Eng. & Constr. Co., McBirney Bldg., Tulsa, Okla., A. Stanley, in charge, Lancaster Hotel, Lancaster, O., engr.

Alta., De Winton—AERODROME BUILDINGS—Dpt. National Defense for Air, Ottawa, Ont., wood buildings at S.F.T. School to Bennett & White Constr. Co. Ltd., Examiner Bldg., Calgary, **$414,000.**

Alta., De Winton — AERODROME — Dpt. Transport, Ottawa, Ont., developing aerodrome, grading, hard surfaced runways, taxi strips, etc., Relief 2 to Currie Barracks, to Dutton Bros. & Co., Ltd., Calgary. About **$250,000.**

Alta., Edmonton—AERODROME—Dpt. National Defense for Air, Ottawa, Ont., additional buildings at Aerodrome 4 Initial Training School, to H. G. MacDonald, Tegler Bldg., **$50,000.** CD 3/6—ENR 3/20.

Alta., Fort St. John — FIELD DEVELOPMENT—Dominion Govt., Ottawa, Ont., field development work, airport, to Tomlinson Constr. Co. Ltd., 1 Somerset Bldg., Winnipeg, Man. **$200,000.** CD 7/2—ENR 7/17.

B. C., Patricia Bay—AERODROME BUILDINGS—Dpt. National Defense for Air, Ottawa, Ont., additional buildings, R.C.A.F. Airport, to Marwell Constr. Co., Ltd., 540 Howe St., Vancouver, **$80,000.**

★**N. B., Moncton**—FLYING SCHOOL—Dpt. National Defense for Air, Ottawa, Ont., general contract various buildings at R.A.F. Personnel depot, incl. 4 groups barracks, lecture halls, mess halls, drill halls, headquarters and administration buildings, staff houses, hospital, warehouses, grading, sewers, watermains, roads, etc. to Carter-Halls-Aldinger Co., Ltd., 419 Cherry St., Toronto, Ont. about **$3,000,000.**

N. B., Scoudouc — REPAIR DEPOT — Dpt. National Defense for Air, Ottawa, Ont., No. 4 Repair Depot, to New Brunswick Contractors, Ltd., 604 Queen St., and Diamond Constr. Co. Ltd., Royal Bank Bldg., Fredericton. **$118,000.**

Que., St. Jerome—DAM—Dominion Rubber Co., Ltd., 550 Papineau Ave., Montreal, dam to Laflamme & Laflamme, 8500 St. Hubert St., Montreal. Est. **$25,000.**

Que., St. Johns — REPAIR DEPOT — Dpt. National Defense, Ottawa, Ont., constructing 22 temporary frame buildings, etc., No. 9 Repair Depot at Commonwealth Air Training plan, to L. G. Ogilvie & Co., Ltd., 1440 St. Catherine St. W., Montreal. **$400,000.**

Que., Thetford Mines — DAM — Dam, to Beadet & Bergeron, 61 Marie Rallet St., Quebec. **$30,050.** Bids 7/14. CD 6/9.

LATIN AMERICA

Brazil—President Getulio Vargas, authorized Panair do Brazil, subsidiary of Pan American Airways to build and imprv. airfields on Brazilian coast from north of Amazon River to Sao Salvador, at Amapa, Para, Sao Luis, Fortaleza, Natal, Pernambuco, Macelo and Sao Salvador.

Mexico—Mexican Government, Scruta de Agricultura, Mexico, plans 2 sugar centrals, one at Amatitlan, Jalisco state, with daily grading capacity of 1,000 metric tons; other at Tecax, Yucatan, with yearly sugar production 12,000 metric tons. $425,000.

PUBLIC BUILDINGS

PROPOSED WORK

★**Ala., Anniston**—Recreation center, $200,000. hospital $500,000, sewerage treatment plant and outfall $517,000, health center $860,000. Applied for PWA.

Ark., Fort Smith—Mayor, Spare. Hospital addn. $150,000.

Ark., Fort Smith—Mayor, St. Edward's Hospital addn. $250,000.

Ark., Hope—Mayor, expanding, imprv. power plant. $50,000.

Calif., Barstow—Los Angeles Bureau of Power & Light, 207 S. Bway., Los Angeles, patrol buildings, garage, caretakers, etc. buildings. $68,500.

†Calif., Camp Callan—Con. Q.M., motor repair shops, barracks, mess halls, store house, etc.

Calif., Sacramento—State plans being completed by A. Boyd, state archt. P. Wks. Bldg., rein.-con. P. Wks. Building addn. Over $150,000.

Calif., San Miguel—Con. Q.M., Camp Roberts, motor repair shops, storehouse barracks mess halls, administration buildings, etc.

★**†Calif., Santa Ana**—War Dpt., 20 St. and Constitution Ave., N.W., Wash., D. C. A.C. cadet replacement training center, barracks, day rooms, supply rooms, officers mess, chapel, administration buildings, fire station, guard house, roads, walks, hospital post exchanges, gas service station, motor repair shop, etc. $3,222,889.

★**†Colo., Colorado Springs**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C. camp. $22,875,000. Fisher, Fisher & Hubbell, Denver Natl. Bank Bldg., Denver, and Paulette & Wilson, 1006 Kansas Ave., Topeka, Kan., archts. and engrs. CD 7/22—ENR 7/24.

†Conn., Bridgeport—Federal Works Agency, Wash., D. C., rejected bids July 29, 250 dwelling defense housing, Conn. 6053-X. Evers St. Walter. J. Skinner, 120 Bank St., archt. CD 7/31.

†Conn., Bridgeport—Federal Works Agency, 2082 Kings Highway, Fairfield, rejected bids Aug. 1, 150 dwelling units, defense housing, Conn. 6054-X. Park Ave. Will revise plans. Charles Wellington Walker, 1115 Main St., archt. CD 7/18—ENR 7/24.

Conn., Milford—Alling, town bldg. comr., West River St., sketches by Provoost & Everett, 421 Main St., 2 story, bsmnt. school, Patterson Tract. $200,000.

Conn., New Britain—Dpt. P. Wks., brick, steel, concrete fire-police bldg., Main and East Main Sts. $150,000.

Conn., North Haven—Town, Bd. Selectmen, Town Hall, bids about Septembere, 2 story, bsmnt., brick, steel school, Ridge Rd. $150,000. R. H. S. Booth, Old Orchard Rd., archt. CD 5/20—ENR 5/22.

Conn., Stamford—Mayor's office, City Hall, brick, stone court police headquarters bldg. $150,000.

Del., Milford—Milford Special School Dist., Milford, school. $350,000. Bond issue approved. CD 2/13—ENR 2/20.

†Ga., Macon—Con. Q.M., Camp Wheeler, motor repair shops.

Ill., Hanover—Bd. Educ. school. $150,000.

★**†Ill., Momence**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., ordnance regulation station. $7,000,000.

†Ind., Fort Benjamin Harrison—Con. Q.M., motor repair shops.

★**†Ind., Fort Wayne**—General Electric Co., 1 River Rd., Schenectady, N. Y., factory for manufacture turbo-superchargers for airplanes, for War Dpt. $20,00,000.

Ia., Iowa City—State Bd. Control, D. R. McCreery, chn., Des Moines, plans by Keffer & Jones, 202 Masonic Temple, Des Moines, library building, State University. $300,000. CD 1/8—ENR 1/16.

★**†Kan., Baxter Springs**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., ammonium nitrate plant, Jayhawk Ordnance Works. $17,700,000.

Kan., Wichita—Sedgwick Co., C. N. Cartwright, clk., hospital. $175,000. Contemplate PWA financing.

★**†Ky., Avon**—Con. Q.M., McClelland Bldg., Lexington, cancelled bids to have been opened Aug. 5, Warehouse 3 and 5 and Warehouse 4 and 6, administration and miscellaneous buildings, railroads, roads, walks, grading, fencing, etc. About $3,000,000. Allied Engineers & Architects, c/o J. F. Wilson, J. S. Watkins, G. S. Bell, J. K. Latham, McClelland Bldg., Lexington, archts. CD 7/25—ENR 7/31.

★**†La., Lake Charles**—Mathieson Alkali Wks., 60 E. 42 St., New York, N. Y., constructing, equipping magnesium plant. $12,500,000. Defense Plant Corp. will finance.

†Md., Baltimore—Veterans Administration, Arlington Bldg., Wash., D. C., rejected bids July 26 Boiler House 226, Fort Howard. CD 7/7—ENR 7/10.

Md., Havre de Grace—Havre de Grace Hospital, 3 story, bsmnt., fireproof hospital. $200,000. Pending approval PWA funds.

PUBLIC BLDGS. (Proposed Work, Cont'd.)

★†**Mich., Detroit**—Holley Carburetor Co., 5930 Vancouver St., plans constructing equipping plant for production aircraft parts, for War Dpt. $661,415. Defense Plant Corp. will finance.

Mich., Detroit—Bd. Educ., 1354 Bway Ave., 1 story, brick, steel, rein.-con. Wilbur Wright High School addn. $192,718.

Mich., Wyandotte—Municipal Serv. Comn., power plant, Contr. 7, power wiring; Contr. 8, installation power piping. Over $100,000. Burns & McDonnell, 107 W. Linwood Blvd., Kansas City, Mo., engrs.

★†**Miss., Biloxi**—Biloxi Housing Auth., plans by Landry & Matthes, Hattiesburg, 175 unit housing at Air Corp Training School, for USHA. $500,000. CD 7/10—ENR 7/17.

★**Mo., St. Louis**—Bd. Educ., 911 Locust St., plans by J. P. Sullivan, comr. School Bldgs., 911 Locust St., high school, northwestern section city, $2,000,000; school to replace portables at Busech School, 5900 Holly Hills and Nottingham School, 4920 Ivanhoe Ave. and school Field and Robert Ave., $1,000,000.

Mo., St. Louis—C. E. Ellaby, pres. Bd. Pub. Serv., 5600 Arsenal St., rehabilitating buildings, City Hospital Group 1, $425,000.

Mo., St. Louis—C. E. Ellaby, pres. Bd. Pub. Serv., 304 City Hall, remodeling, repairing new equip. for Isolation Hospital, 5600 Arsenal St., $265,000.

†**Mont., West Yellowstone**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., Triangular Division Camp (winter training). Shanley, Van Teylingen & Henningson, 1st Natl. Bank Bldg., Great Falls, engrs. CD 7/22—ENR 7/24.

†**Neb., Fort Crook**—Con. Q.M., motor repair shops.

†**Neb., Fort Robinson** — Con. Q.M., health center. $35,000.

Neb., Gretna—C. H. Connor, clk., high school for Bd. Educ. $150,000. Will apply for PWA gr.

†**N. H., Manchester**—Pub. Bldgs. Administration, Wash., D. C., 85 housing units.

N. J., Paterson—St. Joseph's Hospital, 691 Main St., 4 story, bsmnt., 40x300 ft., brick, steel, terra cotta nurses' home addn., Main St. $200,000. Fanning & Shaw, 49 Ward St., archts. S. Shaw, 24 Walnut St., Newark, engr.

N. Y., Jamaica—Dpt. P. Wks., Municipal Bldg., New York, plans by J. B. Basil, c/o owner, 5 story health center and borough office, Parsons Blvd. near Jamaica Ave. $400,000.

N. C., Asheboro—Randolph Co. Bd. Educ., $600,000 bond election Oct. 7., school building program. L. F. Ross, chn. Bd. Educ. (**Correction**—owner.) CD 7/8—ENR 7/10.

†**N. C., Durham**—Wright's Automatic Tobacco Packing Machine Co., Durham, plans construction buildings for Navy Dpt. $350,000. Defense Plant Corp. will finance.

†**N. C., Durham**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., Triangular Division Camp William A. Piatt & W. S. Lee Eng. Corp., 422 S. Church St., Charlotte, engrs. CD 7/22—ENR 7/24.

★**N. C., Greensboro**—City Housing Auth., A. C. Hall, chn., 275 living units. $1,000,000. USHA.

★**O., Canton**—Bd. Educ., 3 new schools, $1,200,754.

★**O., Canton**—Bd. Educ., Allen Gonder Ave, S.E., J. H. Mason, supt. Schools, schools for anticipated 2,500 children, new defense workers. $1,112,000.

†**O., Cincinnati**—U. S. Eng., Ohio River Div., Enquirer Bldg., 1 story, brick, tile testing laboratory in Westover Sect. of Mariemont. $80,000. Potter, Tyler & Martin, 35 E. 7 St., archts. W. D. Ehler, Kenwood, Cincinnati, mechanical engr.

O., Cleveland—Y. M. C. A., C. V. Thomas, pres., 2200 Prospect Ave., plans by Maier & Walsh, 10006 Carnegie Ave., 2 story, 60x100 ft. dormitory; 1 story 49x100 ft. gymnasium, swimming pool. $250,000.

★†**O., Cleveland** — Champion Machine & Forging Co., 3695 E. 78 St., constructing, equipping plant for manufacture steel forgings for aircraft struts and engines, for War Dpt. $2,699,680. Defense Plant Corp. will finance.

★†**Okla., Choteau**— War Dpt., 20 St. & Constitution Ave. N.W., Wash., D. C., smokeless powder plant, known as Oklahoma Ordnance Works. $51,000,000 has been authorized for land, buildings, equip.

†**Okla., Fort Sill**—Con. Q.M., barracks, administration, officers quarters, hospital wards, telephone sys. utilities. $398,300.

†**Ore., Portland**—Pub. Bldgs. Administration, Wash., D. C., 85 housing units.

★†**Pa., Beaver**—Beaver Co. Housing Auth., 119-9 St., Monaca, sketches by J. E. Martsolf, G. E. Trent and H. Bradley, 9 St. Monaca, defense housing development 800 families, for USHA. $3,500,000. M. Baker, Jr., Rochester, Pa., survey engr. E. S. Tower, 213 Investment Bldg., Pittsburgh, mechanical engr.

★†**Pa., Braddock** — Carnegie-Illinois Steel Co., plant for production pig iron, will form part of Edgar Thompson facilities. $32,000,000. Defense Plant Corp. will finance.

†**Pa., Coatsville**—Lukenweld, Inc., plant for production diesel engine parts, for Navy Dpt. $310,000. Defense Plant Corp. will finance.

★**Pa., Johnstown**—Johnstown Housing Auth., J. Siciliano, chn., housing project, 18 acre site. $600,000. USHA.

†**S. C., Spartanburg**—Con. Q. M., Camp Croft, motor repair shops.

★†**Tenn., Clarksville**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., barracks, mess halls, hospitals, officers quarters, etc. for 30,000 men. $24,900,000. Allied Engineers & Architects, John F. Wilson, J. Stephen Watkins, Howard K. Bell, and James K. Latham, McClellan Bldg., Lexington, Ky., archts. CD 7/22—ENR 7/24.

Tenn., Knoxville—W. W. Wynott, mayor, plans by Barber & McMurray, 517½ W. Church Ave., school bldg. for Technical High School. $400,000. CD 6/5—ENR 6/12.

★**Tenn., Nashville**—T. L. Cummins, mayor, general hospital addn. $750,000.

Tex., Abilene—W. W. Hair, mayor, plans by David S. Castle Co., 108½ N. 1 St., recreation building, 2 story, 280 ft. long. $257,600. PWA.

★†**Tex., Bastrop**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., camp $22,875,000, Freese & Nichols, Capps Bldg., Fort Worth, engrs. CD 7/22—ENR 7/24.

Tex., Bay City—Bd. Educ., E. O. Hutcheson, supt., plans by Hedrick Lindsley, Inc., 811 Southern Standard Bldg., Houston, high school addn., elementary school and junior high school alterations and addns., new colored school, etc., $340,000. Applied for PWA funds. CD 6/39—ENR 7/3.

Tex., Brownwood—Medical Arts Hospital, Brownwood, plans by W. C. Hedrick, 1005-1st Natl. Bank Bldg., Fort Worth, and H. C. Blount, Brownwood, assoc. archts., brick, concrete hospital unit. $150,000.

Tex., Bryan—Bryan Housing Auth., c/o S. Zismars, chn., plans by O'Neil Ford & A. B. Swank, 511 Villita St., San Antonio, J. Phinney, College Station and W. E. Nash, Bryan, assoc. archts., housing. $350,000. USHA. CD 7/24—ENR 9/20.

Tex., Clarksville—Bd. Educ. plans by Gregory & Cates, Tyler, 1 story, 160x240 ft., brick, concrete school. $150,000. CD 4/10—ENR 4/17.

Tex., Columbus—Colorado School Dist., school. $150,000. Bond election in August.

Tex., Corpus Christi—Nueces Co. School Dist., Flour Bluff, school, Flour Bluff, 14 mi. south of here. $150,000 (funds earmarked) PWA.

Tex., Corpus Christi—Corpus Christi Ind. School Dist., plans by N. W. Hardy, Nixon Bldg., high school. $230,000.

Tex., Corpus Christi—Flour Bluff Com. School Dist. 22, A. L. Smith, Corpus Christi, plans by G. E. Newhall, 509 Aubrey St., high school (Tex. 41-126). $150,000. Application filed for PWA funds.

Tex., Corpus Christi—Sunshine—Aberdeen School, (cons.) Dist. 5, plans by Brock, Roberts & Anderson, Jones Bldg., 1 story, 96x330 ft., brick, rein.-con. school (Tex. 41-131). $385,000. Application filed for PWA funds.

Tex., El Paso—E. J. Cummins, pres. Bd. Educ., 2 story, 58x234 ft., brick school auditorium, Tex. 41-138) $165,000; 2 story, 58x122 ft. Austin Junior High School, (Tex. 41-137) $165,000; 2 story, 86x186 ft., brick Austin High School Addn., (Tex. 41-136) $187,000. Applied for PWA funds.

Tex., Lubbock—Texas Technological College, C. Jones, pres., plans by W. C. Hedrick & Co., 1st Natl. Bank Bldg., Fort Worth, agricultural building. $250,000. Funds appropriated.

†**Tex., Mineral Wells**—Con. Q.M., Camp Wolters, motor repair shops, mess halls, barracks, storehouse, administration recreation building.

Tex., Orange—500 student capacity school. $252,000.

Tex., Victoria—Bd. Educ. plans by K. J. Lefland, Victoria Natl. Bank Bldg., 58x209 ft. and 37x41 ft., mechanical vocational shop and elementary school. $150,000.

†**Tex., Waco**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., Armored Division Camp. Wyatt C. Hedrick, 1st Natl. Bank Bldg., Fort Worth, engr. CD 7/22—ENR 7/24.

†**Va., Fort Eustis**—Federal Works Agency, Wash., D. C., 75 demountable housing units.

†**Wash., Bremerton**—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., additional hospital wing Puget Sound Navy Yard, $475,000.

†**Wash., Bremerton**—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., exten. dispensary, Puget Sound Navy Yard, $60,000.

†**Wash., Fort Lewis**—Con. Q.M., motor repair shops.

Wash., Port Blakely—Bainbridge Island School Dist., school, $450,000.

Wash., Port Orchard—School Bd., plans by F. B. Stephen, Smith Tower, Seattle, high school. $150,000.

Wash., Port Orchard—School Dist., plans by F. B. Stephen, Smith Tower, Seattle, archt., school. $290,000.

Wash., Poulsbo—School Bd., Junior High School, $175,000.

Wash., Pullman—Washington State College, cancelled bids to have been opened July 29, veterinary classroom bldg. $150,000. Will readvertise H. Bertelsen, Empire State Bldg., Spokane, archt. CD 7/1—ENR 7/10.

Wash., Pullman—Washington State College, rejected bids July 29, engineering laboratory, $150,000. Will readvertise. Rigg & Vantyne, Peyton Bldg., Spokane, archt. CD 7/30—ENR 8/7.

★†**Wash., Seattle**—Seattle Housing Auth., Central Bldg., 700 defense housing units for USHA. $2,500,000. Funds allotted.

Wash., Silverdale—School Bd., high school, $175,000.

Wash., Tacoma—Glover Park School Dist., school $225,000; high school $280,000, Glover Park, near here.

Wash., Tacoma—Pierce Co., Courthouse, hospital wing. $150,000.

★†**Wis., Camp McCoy**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., impv. camp, near here. $22,800,000. Mead, Ward & Hunt, Madison, engrs. CD 7/22—ENR 7/24.

Wis., Green Bay—Plans by H. Williams, Northern Bldg., 3 story 85x150 ft. concrete, steel U. S. Naval Reserve Armory.

†**Alaska**—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., hospital facilities, Naval Air Station, Sitka, $300,000, recreation facilities for submarine base, at Kodiak. $50,000.

†**Alaska, Ketchikan**—School. $190,000. H. B. Foss, Juneau, archt.

★†**Alaska, Kodiak**—Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., D. C., barracks and mess halls for submarine base. $600,000.

†**Alaska, Kodiak**—Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., quarters for bachelor officers, new submarine base. $300,000.

BIDS ASKED

Bids Asked about August 10

†**Calif., McClellan Field**—U. S. Eng., Postoffice, Sacramento, four 60x153 ft. warehouses. CD 8/4—ENR 8/7.

Bids Asked August 11

★†**Conn., Bridgeport**—Federal Works Agency, Wash., D. C., 400 dwelling units, defense housing, Success Park, Conn. 6052X. $1,200,000. Extended date. H. G. Lindsay, 211 State St., Bridgeport, archt. CD 7/18—ENR 7/24.

†**D. C., Bolling Field**—U. S. Eng. Office, 1 and Douglas Sts. N.W., Wash., D. C., Air Corps temporary office building; adv. ENR 8/7.

N. Y., New York—Supt. School Bldgs., Design & Constr., 49 Flatbush Ave. exten., Brooklyn, plumbing, drainage, heating, ventilating, electrical work, lighting fixtures for P.S.121, on block bounded by 119 and 120 Sts., 5 and Madison Aves. CD 5/20—ENR 5/22, under CA.

Bids Asked August 12

†**Ill., Scott Field (Belleville)**—U. S. Eng., 816 U. S. Court House and Customhouse, St. Louis, Mo., mobilization type buildings, reception center, barracks, mess hall, officers quarters, etc.; adv. ENR 8/7. CD 7/25—ENR 8/31.

★**Ky., Louisville**—Louisville Municipal Housing Comm., 1013 Realty Bldg., housing. $1,325,000. Colley & Harstern, Architects Realty Bldg., ch. archt. A. Reed Henry, 124 Pennsylvania Ave., F. R. Lewis, 2327 W. Madison St., and H. Redman, 612 S. 5 St., assoc. archts.

N. Y., Walkill—Bd. Educ., Central School Dist. 1, altering, constructing high school addn. $200,000. G. S. Marvel, 216 Grand St., Newburgh, archt. CD 1/3—ENR 1/9.

Pa., Beaver—Bd. Comrs. Beaver Co., R. H. Bennett, controller, 2 story, bsmnt., brick, stone, power house. Carlisle & Sharrer, 507 Martin Bldg., NS, Pittsburgh, archts.

Pa., Scranton—Scranton Housing Auth., H. C. Case, secy., J. Coyle, exec. dir., Lincoln Trust Bldg., 20 low cost housing units. Bids 7/1 rejected. CD 7/3—ENR 7/10, under LB.

Bids Asked August 13

†**Ark., Ashdown**—Farm Security Administration, Little Rock, dwellings, etc., 13 farmstead units.

Pa., Camp Hill—Pennsylvania Dpt. Property & Supplies, State Capitol, Harrisburg, structural steel construction for industrial building, Pennsylvania Industrial School. C. J. Lappley, Riverview, Manor Apartments, Harrisburg, archt.

Bids Asked August 15

†**Wash., Midway**—Bonneville Power Administration, P. O. Box 3537, Portland, Ore., operators cottages, dormitory, garages, Inv. 21112. Bids July 3 rejected. CD 7/8—ENR 7/10.

Bids Asked August 19

†**Ark., Star City**—Farm Security Administration, Little Rock, dwellings, etc., 20 farmstead units.

PUBLIC BLDGS. (Bids Asked, Cont'd.)

Bids Asked August 19

Colo., Denver—Housing Auth. of Denver City and Co., City and County Bldg., 76 dwelling units, Lincoln Park Housing addn., Proj. Colo. 1-2A. T. H. Buell, 730 14 St., archt. CD 6/5—ENR 6/12.

†Ore., Bonneville—U. S. Eng., 628 Pittock Blk., Portland, 16 steel intake gates for powerhouse.

★**R. I., Providence** — Providence Housing Auth., D. Barry, chn., 4 Weybosset St., 120 dwelling unit, Codding Court, USHA Proj. RI 1-3, $620,000; 278 dwelling unit, Admiral Terrace Housing, USHA Proj. RI 1-1A, $1,270,000. CD 6/9 and 6/6—ENR 6/12.

Bids Asked August 21

La., Lake Charles—Lake Charles Housing Auth., 36 twin house buildings, 1 combination community center and dwelling unit building, Booker T. Washington Courts, La. 4-2; 40 twin houses, 1 community center building low-rent housing project, high school, park homes, Booker T. Washington Court, La. 4-1. CD 6/13—ENR 6/26.

Bids Asked August 22

Colo., Colorado Springs—E. L. Mosely, city mgr., furnishing, installing condenser and other miscellaneous power plant equip. $40,000. Burns & McDonnell, 107 W. Linwood Blvd., Kansas City, engrs.

Bids Asked August 25

Ark., Fort Smith—Con. Q.M., Fort Smith, Ark., armored camp, incl. buildings and utilities. $17,000,000. CD 5/27—ENR 6/5.

★**†Calif., Santa Maria**—Con. Q.M., Santa Maria, utilities and buildings for Armored Division (15,000 to 20,000 troops) incl. hospital, water supply and distr. sys., pump. plant, high level storage reservoir, sewage collection and disposal, 40 mi. access roads, 31 mi. interior roads, etc. $20,000,000. $2,000,000 available.

Bids Asked August 28

★**Tex., Galveston**—Galveston Housing Auth. c/o L. W. Henslee, exec. dir., City Hall, 230 unit negro housing, $1,056,000. USHA. B. Miam, Trust Bldg., ch. archt. R. R. Rapp, Guaranty Bldg., and F. T. Stafford, 1921 Post Office St., assoc. archts. J. W. Beretta Engineers, Inc. Nati. Bank of Commerce Bldg., San Antonio, engrs. CD 2/14—ENR 2/20.

Bids Asked

†Mo., Weldon Springs—Farm Security Administration, Wash., D. C., 200 unit dormitory-type housing units and 120 unit of trailer type for use by workers of War Dpt. TNT and DNT plant. $190,000.

B. C., Prince Rupert—Wartime Housing Ltd., 55 York St., Toronto, Ont., (selected list bidders) 125 houses, 2 dormitories, commissary building. About $400,000. CD 7/30.

★**Ont., Kingston**—Wartime Housing Ltd., 55 York St., Toronto, 200 single family houses, 3 staff houses, commissary building, sewers, waterworks. About $550,000. CD 3/27—ENR 4/3.

LOW BIDDERS

★**Calif., San Francisco**—Housing Authority of City and County of San Francisco, 525 Market St., July 29, 220 dwelling unit Bernal Dwellings, Low Rent Housing, Proj. Cal. 1-5, from Anderson & Ringrose, 320 Market St., **$1,070,000.** Est. $800,000. CD 7/17.

†Conn., Bantam—Federal Works Agency, Wash., D. C., Aug. 1, 40 unit defense housing, Conn. 6082-X, from Rudolph R. Corrado, 583 Park St., Newark, N. J. **$159,893.** Est. $120,000. CD 7/31—ENR 8/7.

★**†Conn., East Hartford** — Federal Works Agency, Wash., D. C., July 29, Laurel Park Heights Defense Housing, Project Conn. 6024 X, from Cauldwell-Wingate Co., 101 Park Ave., New York, N. Y., **$1,979,000.** Est. $1,500,000. CD 7/18—ENR 7/24.

★**†Conn., Fairfield**—Federal Works Agency, Wash., D. C., 200 dwellnig units, defense housing, Conn. 6071X, Knapps Hy., from A. E. Stephens, 1200 Main St., Springfield, Mass. **$863,000.** CD 7/18—ENR 7/24.

Conn., Greenwich—J. G. Tobin, supt. schools, July 28, general contract Julian Curtiss School, brick, steel, stone, from W. A. Berbusse Jr., Inc., 101 Park Ave., New York, **$412,000***** electrical work, from Port Chester Elec. Co., Inc., 189 N. Main St., Port Chester, N. Y., **$26,455***heating and ventilating, from John Winkel Co., Inc., 148 Larchmont Ave., Larchmont, N. Y. **$37,636.** W. B. Tubby, 444 Madison Ave., New York, and Coffin & Coffin, 125 E. 46 St., New York, archts. P. N. Sunderland, 20 West St., Danbury, engr. CD 7/14—ENR 7/17.

Conn., Greenwich—J. G. Tobin, supt. schools, July 28, brick, steel, stone, blue stone, Vermont marble Central School, Millbank Ave., from W. A. Berbusse Jr., Inc., 101 Park Ave., New York. **$412,000.**

★**La., New Orleans**—Bd. Comrs. Port of New Orleans, 2 Canal St., July 3, 1 story, 440x792 ft., warehouse and factory, from James E. Caldwell Co., 816 Howard Ave. **$1,419,364.** CD 7/1—ENR 7/10.

★**†Me., Bath**—Public Bldgs. Administration, Wash., D. C., July 28, 200 units housing, from Stewart & Williams, 5 Wade St., Augusta. **$699,000.** CD 7/21—ENR 7/24.

Mass., Braintree—C. E. Fisher, supt. schools, Town Hall, July 29, 3 story, bsmnt., 85x110 ft., brick, steel, stone high school, Washington St., from J. Hamre & Son, 55 Buckingham Rd., Quincy. **$279,900.** Est. $250,000. CD 7/17—ENR 7/24.

Mo., Kansas City—A. C. Everham, dir. P. Wks., July 29, 26x50 ft., brick, concrete produce spaces, from Weeks Constr. Co., Finance Bldg., **$338,981.** CD 7/2—ENR 7/24.

★**†Mo., St. Charles**—Public Bldgs. Administration, Wash., D. C., July 25, 140 unit housing, forty-one 1 and 2 story, brick, concrete masonry unit buildings, from Stephens-Brown Co., BMA Bldg., Kansas City, Mo. **$596,800.** CD 7/17—ENR 7/24.

Nev., Winnemucca—Humboldt Co. School Dist., high school plant, from H. E. Schraven, Dooly Bldg., Salt Lake City, Utah. **$176,470.** CD 7/28—ENR 7/31.

★**†N. J., Phillipsburg**—Public Bldgs. Administration, Wash., D. C., July 29, 250 defense housing, from Fred J. Brotherton, Inc., 200 Main St., Hackensack. **$1,048,522.** CD 7/23.

N. Y., New York—Dpt. P. Wks., Municipal Bldg., general contract boiler and electric generating plants addn. Harlem Hospital, July 28, from Robert Cook, Inc., 250 E. 43 St., **$8,298*****plant equip. and piping from Dierks & Co., Inc., 44 Steuben St., Brooklyn, **$75,693*****electrical work from T. Frederick Jackson, Inc., 25 W. 43 St., **$20,390.** CD 7/28—ENR 7/24.

★**†N. Y., Niagara Falls**—Pub. Bldgs. Administration, Wash., D. C., July 25, defense housing, 300 units for industrial workers, from Skolnick Bldg. Corp., 17 E. 42 St., New York. **$1,068,000.** CD 7/10—ENR 7/17.

N. C., Wilson—Eastern North Carolina Sanatorium, general contract tuberculosis sanatorium, from McDevitt & Street Co., Box 653, Myrtle Beach, Charlotte, **$331,710.** Bids 7/31. CD 7/18—ENR 7/24.

★**†Pa., Chester**—Public Bldgs. Administration, Wash., D. C., July 28, 300 defense housing units, from Anthony P. Miller and Anthony P. Miller, Inc., 3333 Arctic Ave., Atlantic City, N. J., **$1,259,000.**

★**Pa., Erie**—Erie Housing Auth., M. A. Zurn, chn., July 29, 224 homes, Harbor Homes Housing development, from Charles Shutrump & Sons Co., 101 W. Hylda St., Youngstown, O. **$689,840.** USHA. CD 7/8—ENR 7/10.

★**†Pa., Media**—Public Bldgs. Administration, Wash., D. C., defense housing, 250 units, Ridley Twp., for Delaware Co., from MacArthur Constr. Co., Inc., 101 Park Ave., New York, N. Y., **$1,040,000.** Gilbert Stanley Underwood, 3000 39 St. N.W., Wash., D. C., archts.

†S. C., Charleston—Pub. Wks. Officer, Navy Yard, Charleston, July 31, labor board and post office building, Navy Yard, from Long Constr. Co., 1235 King St. **$171,922.**

★**†S. C., Parris Island**—Navy Dpt. 18 St. and Constitution Ave. N.W., Wash., D. C., housing units, Charleston Navy Yard, from Long Constr. Co., 1235 King St., Charleston. **$748,000.** D. Ellington, 5 Exchange St., Charleston, archt.

†S. C., Spartanburg—Spartanburg Housing Auth., July 31, 110 homes, 38041-X and 10 homes 38042-X for USHA, from Claussen-Lawrence Constr. Co., 1394 Gwinnett St., Augusta, Ga. **$359,299.**

†Wash., Fort Lewis—Con. Q.M., Fort Lewis, July 28, 17 portable steel igloo magazines Inv. 6105-42-4, from S. Bergesen, Box 83, Routel, South Tacoma. **$75,700.** CD 7/25.

†Alaska, Anchorage — Dpt. Interior, The Alaska Railroad, depot and general office building, from J. B. Warrack Co., Securities Bldg., Seattle, Wash. **$257,500.**

★**N. S., Shelburne**—Dpt. National Defense for Sea, Ottawa, Ont., various buildings for H. M. C. Navy, from Acadia Constr. Co. Ltd., 101 Upper Water St., Halifax. About **$600,000.**

Que., St. Agathe—J. C. McDougall, archt., 1221 Osborne St., Montreal, July 11, tuberculosis sanatorium for Laurentian Sanatorium Asst., 3664 St. Urbain St., Montreal, from A. F. Byers & Co., Limited, 1226 University St., Montreal. **$400,000.** CD 7/3—ENR 2/27.

CONTRACTS AWARDED

★**†Ala., Huntsville**—War Dpt., 20 St. and Constitution Ave., N.W., Wash., D. C., chemical warfare service arsenal, incl. 11 manufacturing plants, 4 chemical loading plants, depot, plant storage, laboratory shops, offices, hospital, to C. G. Kershaw Contg. Co., 2212 20 Ave. SS., Birmingham, Ala. **$29,000,000.** CD 7/22—ENR 7/24.

★**†Calif., Long Beach**—Yards & Docks, Navy Dpt. Wash., D. C., naval hospital, to R. E. Campbell, 316 E. Weber Ave., Compton, about **$2,250,000.** C. Beelman, 1011 Union Bank Bldg., Los Angeles, archt.

★**Calif., Los Angeles**—Dpt. Water & Power, 207 S. Bway., Los Angeles, furnishing steam generating unit for Harbor Steam plant, Wilmington, Spec. 3815, to Riley Stoker Corp., 408 S. Spring St. **$696,906.** Bids 7/23, awarded 7/31. CD 7/29—ENR 7/31.

★**†Conn., Hamden**—High Standard Mfg. Co., Inc., 1337 Dixwell Ave., brick, steel plant addn., Dixwell Ave., to Dwight Building Co., 67 Church St., New Haven. Est **$4,500,000.** incl. equip. Defense Plant Corp. will finance. D. Orr, 96 Grove St., New Haven, Engr. CD 7/3—ENR 7/10.

★**D. C., Wash.**—Dist. Comrs., for Stephen Elliott Kramer Junior High School, 17 St. F and Q Sts., to Ross Eng. Co., 2308 14 St. N.W. **$945,000.** Bids 7/22.

†Idaho, Boise—U. S. Eng., Pittock Blk., Portland, Ore., officers' mess, paint and oil storage shop and post headquarters, airport. Inv. 698-41-590, to J. O. Jordan & Sons, S. 25 St., **$41,147.** Bids 6/26.

★**†La., Sterlington**—Commercial Solvents Co., 17 E. 42 St., New York, N. Y., anhydrous ammonia plant, near here, for War Dpt., to M. W. Kellogg Co., 225 Bway., New York, N. Y. **$16,750,000.** CD 6/19—ENR 6/26, under Monroe.

★**†Md., Baltimore**—Veterans Administration, Arlington Bldg., Wash., D. C., additional buildings, utilities, Fort Howard, to Auf Der Heide-Aragona, Inc., 5510 Jackson St., West New York, N. J. **$871,700.** Bids 6/26—ENR 7/25. CD 7/1—ENR 7/10.

★**†Minn., St. Paul**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., designing, constructing, equipping, operating Twin Cities ordnance plant, to Federal Cartridge Corp., 2300 Foshay Tower, Minneapolis. Est. cost construction **$30,000,000.** Total est. **$86,058,331.** CD 7/17—ENR 7/24, under Minneapolis.

★**†Mo., Neosho**—War Dpt., 20 St. and Constitution Ave. N.W., Wash. army cantonment, buildings, sewers, water supply, roads, etc., to MacDonald Constr. Co., 724 West Pine Blvd., and G. L. Tarlton, Inc., 3615 Olive St., St. Louis. **$23,000,000.**

N. Y., Cape Vincent—Bd. Educ. Central School Dist., school, to Deline Constr. Co., 720 Mill St., Watertown. Est. $180,456. Bids 6/26. CD 6/20—ENR 3/6.

N. Y., Warrensburg—Bd. Educ., Central School Dist., school, to Marinello & Stanco, Inc., Summit Ave., Albany. Est. **$280,000.** Bids 7/8. CD 6/18—ENR 6/26.

★**†O., Dayton**—U. S. Eng., Wright Field, 2 story, brick, stone, steel shop and office bldg. for 20 ft. wind tunnel, and 2 brick, concrete engine test torque stands, Wright Field, to Simpson Constr. Co., 1113 S. Hermitage Ave., Chicago, Ill., **$250,000** and **$327,000** respectively***furnishing, erecting structural steel for armament range hangar, to Bethlehem Steel Co., Bethlehem, Pa., $380,185. Grand total $957,185.

★**†O., Dayton**—U. S. Eng., Wright Field, 37 frame buildings for temporary use at Patterson Field, to George Timmons, 1233 E. Broad St., Columbus **$345,037***brick, steel fire control and repair building, to Frank Messer & Sons, Inc., 2515 Burnet Ave., Cincinnati, **$95,000***central heating plant addn., to Huffman Wolfe Co., 669 N. High St., Columbus, **$369,750.** Grand total $809,787.

★**†O., Dayton**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., test laboratory and engineering shops, Wright Field, to National Concrete Fire Proofing Co., Citizens Bldg., Cleveland. Est. **$1,300,000,** (informal letter contract).

★**†O., Dayton**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., engine test stands addn., Patterson Field, to C. H. Shook, 582 W. 2 St. Est. **$650,000** (informal letter contract).

★**†O., Dayton**—U. S. Eng., Wright Field, equipment warehouse, supply warehouse and armament laboratory, Wright Field, to Frank Messer & Sons, 215 Burnet St., Cincinnati. **$908,000.**

★**†O., Fairfield**—U. S. Eng., Wright Field, 2 temporary warehouses, Patterson Field, to James I. Barnes Constr. Co., Logansport, Ind. **$835,200.**

†Pa., Middletown—U. S. Eng., Baltimore, Md., engine storage warehouse, Middletown Air Depot, to Ritter Bros., 1511 N. Cameron St., Harrisburg. **$258,356.**

★**†Pa., New Kensington**—Allegheny Housing Auth., 201 County Office Bldg., Pittsburgh, 250 family defense housing, Pa 36111, for FWA, to Joseph Bendick, 6 Gilmore St., Uniontown. **$1,060,875.** CD 7/18—ENR 7/24.

★**†Tex., Dallas**—Federal Works Agency, Wash., D. C., 300 defense housing units for industrial workers, to Central Contg. Co., Construction Bldg. **$831,000.**

†Tex., San Antonio—National Youth Administration, San Antonio, 2 mechanical training shop bldgs., force account. **$65,000.**

★**†Tex., Texarkana**—Lone Star Defense Corp., c/o B. F. Goodrich Co., 500 S. Main St., Akron, O., ordnance plant, for War Dpt., to Winston Bros. Co., 1470 N.W. Bank Bldg., Minneapolis, Minn., and C. F. Haglin Sons Co., 720 Natl. Bldg., Minneapolis, Minn., Missouri Valley Bridge & Iron Co., Leavenworth, Kan., and Sollitt Constr. Co., South Bend, Ind. Est. **$35,000,000** including equipment. Prack & Prack, Martin Bldg., and Chester Engineers, 210 E. Park Way, Pittsburgh, Pa., archts. CD 7/30.

†Utah, Ogden—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., central steam plant at Ogden Ordnance Depot, to Bechtel-McCone-Parsons, Edison Bldg., Los Angeles, Calif. **$199,200.**

N. S., Amherst—Wartime Housing, Ltd., 55 York St., Toronto, Ont., 50 dwellings and 1 staff house, to General Contractors & Eastern Woodworkers, Brother St., New Glasgow. About **$150,000.** Bids 7/7. CD 7/1.

COMMERCIAL BUILDINGS

PROPOSED WORK

Calif., Marysville—Capital Co. (Bank of America), 625 Market St., San Francisco, completed plans rein.-con., steel bank and office bldg. $150,000. L. H. Nishkian, 525 Market St., San Francisco, engr.

Calif., Millbrae—Roman Catholic Archbishop of San Francisco, 1100 Franklin St., San Francisco, plans by M. J. Rist, Phelan Bldg., San Francisco, rein.-con. church. $150,000.

Conn., Greenwich—Home Builders' Guild, J. B. Warner, pres., 46 Atlantic St., Stamford, sketches residential development, 21 acre tract, Cognewah Rd. Over $150,000.

★**Conn., Hartford**—B. Cox, chn. Hartford Housing Auth., 525 Main St., bids about 10 days, Nelton Court, 10-unit row house, Community Center, $150,000, C. J. Malmfeldt, 36 Pearl St., archt.; bids soon 4 story, brick apartments, 150 units, Bellevue St., Exten. to Conn. 3-3, $895,000, Ebbets & Frid, 15 Lewis St., archts. USHA.

Ill., Decatur—Decatur Housing Auth., housing unit for negroes, $200,000. USHA.

Kan., El Dorado—St. Joseph's Home, El Dorado, soon lets contract 3 story, 102x142 ft., brick, concrete orphanage. $180,000. L. Schmidt, 1832 E. 2 St., Wichita, archt.

Kan., Kansas City—Bethany Hospital, 12 St. and Reynolds Ave., Bethany Hospital addn., 12 St. and Reynolds Ave. Over $150,000. Will apply for PWA funds. J. W. Rodotinsky, Comm'l Nat'l Bank Bldg., engr.

Kan., Wichita—Wesley Hospital, sketches by L. Schmidt, 1832 E. 2 St., Wichita, maternity ward hospital addn. $225,000.

Nev., Las Vegas—Janss Investment Corp., 1081 Westwood Blvd., Westwood, West Los Angeles, Calif., plans by Rowland H. Crawford, 9397 Wilshire Blvd., Beverly Hills, Calif., 2 story store. $250,000. Sears, Roebuck Co., 2650 E. Olympic Blvd., Los Angeles, Calif., lessee.

N. J., Fort Lee—Happiness Homes, c/o P. Schultz, archt., 1211 Summit Ave., Union City, twenty-six 2½ story, bsmnt., 24x37 ft., brick veneer, stone homes. $172,000.

N. J., Fort Lee—Palisade Homes Rockland Realty Co., Bridge Plaza, plans by R. J. Cadien, 570 George Rd., Cliffside Park, twenty 2½ story, bsmnt., 24x32 ft. brick veneer, homes. O'Leary Terrace. $150,000.

N. Y., Brooklyn—Congregation of the Sisters of Mercy, 273 Willoughby St., soon lets contract 1 and 3 story, 62x202 ft. school, auditorium and gymnasium, 710-34 E. 37 St. $270,000. T. H. Irving, 261 Bway., New York, archt. CD 4/28—ENR 5/1.

N. Y., Buffalo—Mass. Mutual Life Ins. Co., 225 Delaware Ave., plans by Esenwein & Johnson, Ellicott Sq. Bldg., theatre and store. $150,000.

N. Y., New York—Park and Forty-Sixth Street Corp., 19 E. 47 St., plans by P. Barnum, 19 E. 47 St., altering 20 story store and office building, 250 Park Ave. $150,000.

N. Y., New York—Riverview Realty, Inc., 155 Mosholu Parkway, plans by T. E. Heindsmann, 349 E. 149 St., 6 story, 112 x 191 ft. apartment, 238 St. and Webster Ave. $450,000.

O., Cleveland—H. A. Kangesser Co., H. A. Kangesser, pres., plans by J. L. Weinberg, 1836 Euclid Ave., 20 four suite apartment bldgs., Euclid and Richmond Rds. $250,000.

Pa., Latrobe—Bd. Directors, J. Coursler, secy., 629 Chestnut St., sketches by Sorber & Hoone, 711 1st Natl. Bank Bldg., Greensburg, 2 story, bsmnt., brick, steel hospital addn., 2 Ave. $250,000. CD 5/27—ENR 6/5.

Pa., Meadville — St. Agatha's Parochial School, A. J. Weschler, pastor, in charge, Meadville, 2 story, bsmnt., brick, steel, concrete school addn. $150,000.

★**S. C., Charleston**—Medical Society of S. C., plans by Samuel Hannaford & Sons, Dix Terminal Bldg., Cincinnati, O., and Simons & Lapham, assoc. archts., 7 State St., 250 bed, Roper Hospital addn., Lucas St. $1,000,000.

★**Tex., Dallas**—Atlantic Refining Co., Magnolia Bldg., c/o E. H. Blum, vice pres., office and commercial building. $600,000 (tentative).

★**Tex., Waco**—Southwestern Bell Telephone Co., Waco, 4 story central office and automatic exchange board building. $1,000,000 equipped and completed.

★**Ont., McKellar**—Bernard Sky & Partners, Timmins, bid soon 150 dwellings under Wartime Housing Ltd. plan. About $500,000. Owner's Staff and Dpt. Wartime Housing Ltd. 55 York St., Toronto, engrs.

★**Que., Montreal**—Holland Canada Home Builders, Inc., 630 Dorchester St. W., 300 houses, Quimet and Aqueduct Aves., Verdun, near here. About $1,000,000. F. G. Todd, 1410 Stanley St., landscape archt.

BIDS ASKED

Bids Asked about August 10

Pa., Pittsburgh—L. A. McMullen, archt., Renshaw Bldg. (selected list bidders), general contract 6 story, bsmnt., 43x106 ft., brick, steel, hollow tile, rein.-con. hospital addn. for St. Josephs Hospital, Sister Anna Regina, supt., 2117 Carson St. CD 5/21—ENR 5/29.

Bids Asked after August 15

Conn., Milford—Milford Hospital, Inc., Bridgeport Trpke, 3 story, bsmnt., rein.-con. hospital addn., Bridgeport Trpke, $150,000. R. H. S. Booth, Old Orchard Rd., North Haven, archt. CD 6/24—ENR 6/26.

Tex., Abilene—Hardin-Simmons University, Abilene, 2 story, 56x129 ft. dormitory, $150,000. Hughes & Olds, c/o Compton Bldg., archts.

CONTRACTS AWARDED

Ala., Anniston—Jefferson Davis Hotel, c/o S. Ingram, Anniston Natl. Bank Bldg., 7 story, rein.-con. brick, steel hotel addn., to A. J. Honeycutt, Inc., 2512-8 St., Birmingham, about **$250,000.** Bids 5/10. CD 5/5—ENR 5/8.

Calif., San Luis Obispo—Fox-West Coast Theatres, and L. Rosenberg, 1609 W. Washington Blvd., Los Angeles, 120x160 ft., rein.-con. theatre, to Contracting Engineers Co., 2310½ W. Vernon Ave., Los Angeles. Approx. **$150,000.** CD 2/17—ENR 2/20.

Calif., Vallejo—Mills Constr. Co., 605 Market St., San Francisco, 25 one story, wood frame dwellings, vicinity Mare Island Navy Yard. Owner builds. Total expenditure over **$150,000.**

Conn., Greenwich—Chalmers & Teufel, Field Point Rd., residential development, Belle Haven. Owner builds. Over **$150,000.**

Conn., New Haven—Beverly Hill, Inc., 581 Fountain St., 1 story, 5 room, prefabricated homes, Westville Section. Owner builds. **$400,000.** American Homes, Inc., 570 Lexington Ave., archt.

Idaho, Twin Falls—Mountain States Telephone & Telegraph Co., 931 14 St., Denver, Colo., telephone building, to A. D. Bobier, Twin Falls. Est. **$265,000.** R. C. Bryant, owner's archt.

Mass., Cambridge—M. Berger, Ware St., 4 story, bsmnt., 125x135 ft. brick, wood apartment, Broadway. **$160,000.** Owner builds. S. E. Moffie, 10 Tremont St., Boston, archt.

Mo., Webster Groves—Christ Lutheran Church, c/o Rev. G. L. Luecke, Jr., pastor, 662 A East Big Bend Blvd., 1 and 2 story, bsmnt., 61x106 ft. and 30x48 ft., stone, brick church, Lockwood and Selma Aves., to Woermann Constr. Co., 3800 W. Pine Blvd., St. Louis. Est. **$150,000** with equip. T. Steinmeyer, 105 N. Kirkwood Rd., Kirkwood, St. Louis, archt.

N. Y., Grand Island—Sears Roebuck & Co., 1740, Jefferson Ave., Buffalo, 50 residences, to J. P. Snyder Constr. Co., Inc., Lovering Ave., Buffalo. Est. **$250,000.** CD 5/15—ENR 5/22.

N. Y., New York—R. F. Leo, 230 Manida St., 6 story, 150x165 ft. apartment, Morris Ave. and 191 St., separate contracts. **$350,000.** G. G. Miller, 67 W. 44 St., archt. CD 7/25—ENR 7/31.

N. Y., New York—Lisbon Realty Corp., 3527 Jerome Ave., 6 story, 79x150 ft. apartment, 205 St. near Mosholu Parkway, separate contracts. **$225,000.** H. H. Lilien, 215 E. 149 St., archt. CD 7/23—ENR 7/31.

N. Y., New York—One Hundred and Eighty-Ninth Street Realty Corp., 3527 Jerome Ave., 6 story, 98 x 130 ft. apartment, 4389 Bway., separate contracts. **$250,000.** T. E. Heindsmann, 349 E. 149 St., archt.

O., Ashland—Baltic Theatre Corp., 1 story, bsmnt., 80x221 ft., brick, steel, concrete theatre, to C. F. Knowlton, Bowling Green. Est. **$250,000.** J. and D. Eberson, 2 W. 47 St., New York, N. Y., archt.

O., Berea—Ohio Bell Telephone Co., 750 Huron Rd., Cleveland, 3 story dial exchange bldg., to H. E. Kiefman Co., 3436 Lorain Ave., Cleveland. Est. **$175,000.** A. W. Bailey, company archt., and G. A. Kositzky, company engr, both 750 Huron Rd., Cleveland. CD 4/1—ENR 4/3.

O., Canton—Ohio Bell Telephone Co., A. W. Bailey, in charge, 750 Huron Rd., 1 story, 66x163 ft. stone, steel, concrete telephone exchange, top addn., to B. & H. Constr. Co., Massillon, awarded 7/25. G. S. Rider Co., 3800 Terminal Bldg., Cleveland, archt. Est. **$150,000.** G. A. Kozitsky, 750 Huron Rd., Cleveland, ch. engr. CD 7/22—ENR 7/24.

Pa., Glenshaw—Mt. Royal Manor, Inc., A. J. Aberman, pres., Mt. Royal Blvd., general contract, three 2 story and 2½ story, bsmnt., face brick on hollow tile, common brick backup, apartment buildings Glenshaw Twp., near here, to Michael J. McDermott & Co., 30 N. La Salle St., Chicago, Ill. Est. **$600,000.** W. A. Denton, Jr., 1425 N. 1 St. N.W., Wash., D. C., archt.

Pa., Phila.—Anes Const. Co., Oakmont St., residences, Oakmont St. Owner builds. Over **$150,000.** I. W. Levin, Belmont Ave., archt.

Pa., Phila.—Gethel Holmes, Inc., 7909 Park Ave., residential development, Decatur St. Owner builds. Over **$175,000.**

★**Pa., Phila.**—E. A. Kerr, 6701 N. Broad St., residential development addn. Owner builds. Over **$500,000.**

Pa., Phila.—H. Korman, 6033 Castor Ave., 50 residences. Owner builds. **$200,000.**

Pa., Phila.—C. Metz, 6701 N. Broad St., residential development, Gilbert St. Owner builds. Over **$150,000.**

Pa., Phila.—R. A. Muth, Torresdale Ave., 80 residences, Tacony sect. Owner builds. Over **$250,000.**

Pa., Pittsburgh—South Park Village, Inc., E. L. Miller, 603 Greenfield Ave., fifty 1½ and 2 story, bsmnt., brick veneer residences, Jefferson Twp., near here, separate contracts. **$275,000.**

Tenn., Alcoa—R. W. Wells & Son, Alcoa, 40 residences. Owner builds. **$150,000.**

INDUSTRIAL BUILDINGS

PROPOSED WORK

★**Ariz., Phoenix** — PLANT — Goodyear Aircraft Corp., E. Market St., Akron, O., soon lets general contract 200x500 ft. steel, brick, glass airplane parts factory on main line of Southern Pacific R.R. in Litchfield Park. $500,000 for building only.

Ark., Marked Tree — PLANT — Chapman Dewey Lbr. Co., U. P. Bk. Bldg., Memphis, Tenn., replacing bldgs destroyed by fire. $150,000.

Calif., San Francisco—PLANT—Kortick Mfg. Co., 335 First St., 1 story, timber, rein.-con. plant. $60,000 first unit. Ultimate cost $250,000.

★**Calif., Santa Monica**—WAREHOUSE, etc. —Douglas Aircraft Corp., 3000 Ocean Park Blvd., plans by Taylor & Taylor, archts. and engrs., 803 W. 3 St., Los Angeles, 300x320 ft. freight warehouse, 24x2400 ft. storage shed, 30x100 ft. office bldg., near Clover Field Blvd. and on Pacific Electric Airline tracks. $500,000.

Calif., Woodland — PLANT — Herschel-California Fruit Co., San Jose, tomato canning plant. Over $40,000.

Conn., Bridgeport — FACTORY—Bridgeport Hardware Mfg. Corp., 461 Iranistan Ave., brick, steel factory addn., Iranistan Ave. $40,000. F. Thompson, Inc., 1336 Fairfield Ave., engr.

Conn., Hamden — PLANT — High Standard Mfg. Co., 1337 Dixwell Ave., brick, steel plant addn. for defense work, Dixwell Ave. D. Orr, 96 Grove St., engr. CD 6/3—ENR 6/5.

Conn., Stamford — PRINTING PLANT — Schneider Press, Inc., 60 Gay St., plans completed by D. Mansell, 24 Park Row, 1 story, 100x300 ft., brick, steel, concrete printing plant, South Atlantic St. $100,000. CD 7/11—ENR 7/19.

Ga., Altoona—PLANT—Georgia Power Co., c/o P. Arkwright, 75 Marietta St. N.W., Atlanta, plant imprvs. to raise production up to 33,000 kw. on Coosa River plant.

Ga., Savannah—POWER PLANT—Savannah Electric & Power Co., c/o President, 27 W. Bay St., additional facilities at Riverside plant to produce additional 25,000 kw. energy at steam plant.

Kan., Kansas City (Rosedale) — GRAIN ELEVATOR—Continental Baking Co., Union Station Bldg., Kansas City, Mo., 500,000 bu. grain elevator near Rosedale Milling Company plant, 1654 Kansas Ave. Over $40,000.

★**Ky., Lexington**—GENERATING PLANT—Kentucky Utilities Co., c/o R. M. Watt, pres., 1st Natl. Bank Bldg., plans nearing completion steam-electric generating plant on Kentucky River, near Tyrone, 25,000 kw. capacity. $3,000,000. CD 11/12—ENR 11/14.

La., Shreveport — WAREHOUSE — Kansas City Southern Ry. Co., 11 and Wyandotte Sts., Kansas City, Mo., A. N. Reece ch. engr. (new constr. and stand.), and Louisiana & Arkansas Ry. Co., A. N. Reece, ch. engr., 11 and Wyandotte Sts., Kansas City, Mo., warehouse. $200,000.

Mass., Northampton—BOTTLING PLANT—Coca Cola Bottling Co., 125 Armory St., Springfield, soon lets contract 1 and 2 story, brick, steel, concrete bottling plant. $50,000. E. Howard, Jr., Butler, Pa., engr.

Minn., Warroad—PLANT—Border Counties Power Co-operative, F. H. Timm, Atty., Warroad, completion generating plant. $175,000. REA allot. CD 6/4—ENR 6/12.

Mo., Kansas City—GARAGE—Kansas City Power & Light Co., 1330 Baltimore St., plans by P. Freshman, Power & Light Bldg., garage addn. $60,000.

Mont., Bozeman—GRAIN WAREHOUSE—Montana Flour Mills Co., C. R. McClave, pres., Great Falls, grain warehouse with equip. $40,000.

Mont., Lewiston — GRAIN ELEVATOR — Montana Flour Mills Co., Great Falls, 300,000 bu. capacity grain elevator. $40,000.

N. J., Camden—FACTORY—R.C.A. Victor Co., Front St., 216x516 ft. factory. $300,000.

N. J., Edgewater Park—FACTORY—General Chemical Co., 40 Rector St., New York, N. Y., factory. Over $100,000. United Engineers & Contractors, 1401 Race St., Phila., Pa., archts. and engrs.

N. Y., Albany—PLANT—Watervliet Tool Co., Inc., 1039 Bway., machine tool plant. Over $40,000. J. M. Myers, 1 Columbia Pl., engr.

N. Y., Buffalo — PERSONNEL — Republic Steel Corp., S. Park Ave., plans by Esenwein & Johnson, Ellicott Sq. Bldg., 2 story, 35x120 ft. personnel building. $75,000.

N. C., Granite Quarry—Carolina Maids Products Co., Granite Quarry, P. H. Lyerly, pres., C. H. Dean, genl. mgr., rebuilding mill. $60,000 incl. equip.

INDUSTRIAL BLDGS. (Proposed Work, Cont'd.)

O., Alliance — FACTORY — American Steel Foundries Co., 4 factory units, 2 spur track across Summit St., $250,000.

O., Cleveland—FACTORY, etc.—Gent Machine Co., A. Gent, pres., 5810 Richmond Rd., plans by J. L. Rodrick, 1820 Euclid Ave., 50x122 ft. brick, steel factory and 11x25 ft. boiler room. $40,000.

O., Cleveland — POWER HOUSE — Euclid Road Mchy. Co., E. H. Parkhurst, pres., 1361 Chardon Rd., plans by H. M. Morse Co., 1500 E. Superior Ave., 1 story, 40x40 brick, steel power house, 2 boilers, stokers. $40,000. Mayer & Valentine, 2036 E. 22 St., engrs.

O., Cleveland—FACTORY—Star Machine & Tool Co., J. E. Schurger, pres., 9320 Woodland St., 1 story, 30x60 ft., brick, steel, concrete factory, 20x60 office bldg. $40,000. E. G. Hoefler, 5005 Euclid Ave., engr.

★**Okla., Cyril**—GENERATING PLANT—Western Electric Co-operative, Inc., T. Moran, pres., Cyril, generating plant. $500,000 REA allot.

Ore., Portland—PLANT—Western Fdry. Co., R. E. Huffschmidt, pres., 2400 S.W. Water Ave., wood frame structure to house melting pot, cranes, core oven, and annealing equip. $50,000.

Pa., Bradford—PLANT—S. R. Dresser Mfg. Co., Fisher Ave., 80x100 ft. plant. $60,000. C. A. Walmsley, c/o owner, engr.

Pa., New Brighton—REPAIR SHOPS, etc.—Beaver Valley Motor Coach Co., New Brighton, rebuilding repair shops and garage. $40,000 with equip.

Pa., Phila.—WAREHOUSE—Union Premier Food Stores Co., 2200 E. Allegheny Ave., 125x135 ft. warehouse. $40,000.

★**Pa., Phila.**—PLANT—Philadelphia Coca Cola Bottling Co., 33 and Reed Sts., plans by F. E. Hahn, 1700 Walnut St., bottling plant. $500,000.

S. C., York—REFRIGERATION PLANT—York Co. Electric Refrigeration Plant Assoc., W. B. Wilkerson, pres., York, electric refrigeration plant, $40,000.

S. D., Milbank—GRAIN ELEVATOR—Whetstone Valley Co-operative Market Assn., Milbank, grain storage elevator. $45,000.

Tex., Beaumont—STORAGE—Pennsylvania Shipbuilding Corp., Beaumont, plans by Steinman & Golemon, c/o Libert Bldg., 2 story, bsmnt., 100x150 ft., storage and office building.

★**Tex., Dallas** — POWER GENERATING UNIT—Dallas Power & Light Co., Dallas Power & Light Bldg., Dallas, 25,000 kw. electric power generating unit, Mountain Creek, near here. $2,500,000.

Tex., Dallas—WAREHOUSE, etc.—International Harvester Co., Industrial Engrs. & Constr. Dpt., c/o O. A. Krueger, 180 N. Michigan Ave., Chicago, Ill., soon lets contract 1 and 2 story, concrete warehouse and office.

Tex., Houston—PLANT—Wyatt Metal & Boiler Wks., Washington Ave. and Missouri-Kansas & Texas Ry. tracks, plant. $150,000.

Wash., Mt. Vernon—SHOP—Hamburg Iron Wks., farm equipment shop to replace structure, destroyed by fire. $40,000.

Wash., Tacoma—PLANT—Tacoma Cooperative Plywood, plywood plant on tideflats. $300,000.

Ont., Kitchener — GARAGE — W. H. E. Schmalz, archt., 129 King St. W., bids soon 1 story, 100x200 ft., steel, brick garage, concrete fdn., for Blue Top Brewing Co., Ltd., King St. $40,000.

★**Ont., Sudbury**—MILL—Falconbridge Nickel Mines, Ltd., 25 King St. W., Toronto, bids soon mill addns. $1,000,000.

BIDS ASKED

Bids Asked August 11

Que., Montreal—SHOP—Canadian National Rys., 360 McGill St., H. A. Dixon, ch. engr., steaming up shop Pointe St. Charles workshops. $50,000.

Bids Asked

Calif., Fresno—PLANT—G. N. Hilburn, archt., 1211 K St., Modesto, 1 story, wood frame, concrete packing plant, for Western Turkey Packing Co., c/o architect. CD 7/23—ENR 7/31.

★**Colo., Denver**—WAREHOUSE—John Deere Plow Co., 1401 W. 13 St., Kansas City, Mo. (selected list bidders), 1 story, 113x225 ft., brick, concrete, warehouse. $900,000. Fisher, Fisher & Hubbell, Denver Natl. Bank Bldg., archts.

Conn., New Britain—WAREHOUSE—Simonds Estate, c/o M. S. Gordeon, 278 Main St., 1 story 42x240 and 70x105 ft., brick, steel warehouse, Myrtle Ave. Horace Ginsbern, 205 E. 42 St., New York, archt. $60,000.

Mich., Plymouth—PLANT—Burroughs Adding Machine Co., brick, steel, concrete adding machine plant addn., plain fdn. Approx. $200,000. Albert Kahn, Inc., 345 New Center Bldg., Detroit, engr. and archt.

O., Hamilton — FACTORY — Herring-Hall-Marvin Safe Co., Grand Blvd., 50 x 170 ft. and 77 x 86 ft., two brick, steel factory bldgs. $300,000.

Pa., Allentown—SUPER SERVICE STATION—Gulf Refining Co., Gulf Bldg., Pittsburgh, and Allentown, C. G. Drasher, div. mgr., master super service station on 100x120 ft. site, 7 and Tilghman Sts. $75,000. CD 7/23—ENR 7/31.

Pa., Brackenridge — LABORATORY — Allegheny Ludlum Steel Corp., Brackenridge, general contract 2 story, 41 x 102 ft., brick, hollow tile backup, steel deck, chemical laboratory. $75,000. J. H. Taylor, Brackenridge, company engr.

Tex., Dallas—PLANT—Fleischmann Yeast, c/o Standard Brands, Inc., 595 Madison Ave., New York, N. Y., 1 and 2 story yeast plant, brick, concrete, steel. $45,000. A. E. Thomas, 401 Constr. Bldg., archt.

Tex., Overton—RECYCLING PLANT—Shell Co., Deere Park (Houston), Sun Oil Co., Esperson Bldg., Sinclair-Prairie Oil Co., Gulf Bldg., and Hunt Oil Co., Houston, 35,000,000 cu. ft. gas daily cap. recycling plant, Chapel Hill, near here. $300,000. CD 7/31.

Ont., Kitchener—MACHINE SHOPS—J. C. Klaehn, archt., 49 King Arthur St., 1 story, 65x100 ft., brick, steel, machine shops, for Dominion Electro Homes, A. P. Pollock, mgr., Edward St. $45,000.

Ont., Sault Ste. Marie—SHOPS—W. M. Hugill, asst. to pres. Algoma Central & Hudson Bay Ry., Sault Ste. Marie, R. S. McCormick, genl. supt. and ch. engr., reconstructing 1 story, 110x306 ft., shop, concrete fdn., Hudson St. $90,000.

Ont., Windsor — ABATTOIR — Sheppard & Masson, archts., 52 Chatham St., brick, concrete abattoir, incl. cold storage rooms, chilling rooms, killing rooms, platforms, for Royal Packing Co., Ltd., L. R. Cumming, Canada Bldg. $65,000. CD 3/13—ENR 3/20.

LOW BIDDERS

De., Dover — FACTORY — Richardson & Robbins, Dover, 40x60 ft., 100x300 ft. factory, from J. A. Bader & Co., 923 Market St., Wilmington. Est. **$75,000.** Robinson, Stanhope & Manning, 902 Orange St., Wilmington, archts.

CONTRACTS AWARDED

Calif., Berkeley—PLANT—Pacific Steel Casting Co., 1320 2 St., steel work for 1 story, steel, concrete plant addn., to Moore Drydock Co., foot of Adeline St., Oakland. Total est. **$40,000.**

Calif., Los Angeles — FACTORY — XLNT Spanish Food Co., 1316 Las Vegas St., rein.-con., brick, concrete factory, to Paul M. Baer & Son, 1627 Hillhaust Ave. Est. over **$40,000.** CD 7/16—ENR 7/24.

Calif., Oakland—FACTORY—E. J. Oshier, c/o R. H. Cooley, engr., 354 Hobart St., 1 story, brick factory, to J. J. Moore Co., 354 Hobart St., **$42,500.**

Ga., Thomasville — WAREHOUSE — W. F. Scott, Thomasville, warehouse, to B. L. Brewton & Sons, Thomasville. **$93,419.**

Ind., Evansville—POWER PLANT—Southern Indiana Gas & Electric Co., Evansville, power plant addition, to A. G. Ryan & Sons, Evansville. **$188,000.**

★**Ia., Cedar Rapids** — FACTORY — Collins Radio Co., 2920-1 Ave. N. E., Cedar Rapids, factory addn., to A. L. Jackson Co., 161 E. Erie St., Chicago, Ill. **$500,000.**

Ia., Des Moines—PLANT—Marquette Cement Mfg., Co. (2nd unit) factory, to Kucharo Constr. Co., 1901 Easton Blvd., Des Moines. **$350,000** with equip. CD 4/22—ENR 4/24.

Md., Baltimore—WAREHOUSES—A. J. Harris Co., 500 S. Fulton Ave., general contract, 3 warehouses, 36x160 ft., 72x170 ft., and 100x250 ft., to Armiger Constr. Co., 2127 Maryland Ave. **$100,000.**

Md., Towson—FACTORY—Bendix Aviation Corp., Bendix, N. J., design and construction 2 story, 130x325 ft. factory, to Austin Co., 19 Rector St., New York, N. Y. Est. **$200,000.**

Mass., East Springfield—PLANT—Westinghouse Electric & Mfg. Co., 633 Page Blvd., Springfield, brick, steel Building J, plant addn., to T. A. Pearson Assoc., 25 Harrison Ave., Springfield. Est. over **$40,000.** CD 7/29—ENR 7/31.

Mass., Medford — FACTORY — Globe-Union, Inc., 19 Power St., Boston, 1 story, 100x180 ft., brick factory, to J. J. Vaccaro, 44 Liberty Ave., Somerville. William H. Dykeman, 46 Cornhill, Boston, engr. Est. **$55,000.**

Mo., Kansas City—GARAGE—Kansas City Power & Light Co., 1330 Baltimore St., garage addn., to L. M. Denny, Davidson Bldg., over **$57,000.** Est. $60,000. Bids 7/8—ENR 7/29. CD 7/30—ENR 8/7.

Mont., Great Falls—WAREHOUSE—Montana Flour Mills Co., Great Falls, 58 x 366 ft. grain warehouse, to Roy Anderson Co., 900 25 St. Est. **$45,000.**

N. J., Clifton and Nutley—CHEMICAL—Fellheimer & Wagner, archts., 155 E. 42 St., New York, three 2 and 2½ story, bsmnt., brick, steel chemical manufacturing bldgs., Kingsland Rd., for Hoffman LaRoche, Inc., Kingsland Rd., Nutley, to White Constr. Co., 95 Madison Ave., New York. **$300,000.** Bids 7/11. CD 7/7—ENR 7/10.

N. J., Trenton—PLANT—Thermoid Co., Whitehead Rd., 2 story, 100 x 200 ft. plant addn., to Fowler-Thorne Co., 211 N. Montgomery St. Est. **$75,000.** CD 6/13—ENR 6/19.

N. Y., Buffalo—PLANT—National Aniline & Chemical Co., 1051 S. Park Ave., plant addn., to Metzger Const. Co., 429 Carlton St. Est. over **$40,000.**

N. Y., Ilion—FACTORY—Remington Rand, Inc., 465 Washington St., Buffalo, 60 x 288 ft. plant addn., to A. Friederich & Sons Co., 710 Lake Ave., Rochester. Est. **$75,000.** Bids 4/18. CD 4/10—ENR 4/17.

N. Y., Jamestown—SALES [illegible] SERVICE—Buskist Nash Sales & Servi[illegible] 2100 Washington St., 1 story, part bas[illegible] automotive sales and service buildings. E[illegible] St., separate contracts. **$40,000** with equ[illegible] CD 7/[illegible] ENR 7/10.

N. Y., Long Island City—FA[illegible]TORY—J. M. Baker, archt., 24-16 Bridge [illegible]laza, 1 story factory and 1½ story, 75 x 12[illegible] ft. office, 39 Ave. and 24 St., for Acco Products, Inc., 24-02 39 Ave., to Birguglio, Sc[illegible]nee & Gaddy, 93-03 Sutphin Blvd., Jamaica Est. **$40,000.** CD 6/20—ENR 6/26.

N. Y., New York—GARAGE—[illegible], Dressel, 216 E. 134 St., 1 story, 106x125 ft. garage, 136 St. near Willow Ave., separate contracts, **$40,000.** A. M. DeRose, 370 E. 149 St., archt. CD 7/24—ENR 7/31.

N. Y., Niagara Falls—FURNACE—Carborundum Co., Buffalo Ave., 95 x [illegible]5 ft. furnace building, to Wright & Kremers, Inc., Main and Pine Sts. **$75,000.** L. J. Citti, c/o owner, engr.

N. Y., Rochester—PLANT—Browning Winsor Corp., 205 St. Paul St., 1 story, 80 x 120 ft. plant, to Werner Spitz Constr. Co., 11 Comfort St. Est. **$40,000.** CD 6/3—ENR 6/5.

N. Y., Rochester — FACTORY — Eastman Kodak Co., Kodak Park, 5 story, 50x60 ft. factory, to Ridge Constr. Co., Kodak Park. Est. **$80,000.**

N. C., Hickory—MILL—Quaker Meadows Mill, Inc., mill, to Herman-Sipe & Co., Conover. **$85,000.** L. R. Rink, Hickory, engr.

O., Cleveland — STORE ROOMS — Broad-Pearl Co., Visconsi, pres., 6085 Pearl Rd., masonry contract 1 story, bsmnt., 130x332 ft. brick, steel store rooms, to M. A. Immormino, 3779 E. 147 St. Est. **$150,000.** L. Skolnick, 314 E. Superior Ave., archt.

O., Cleveland—FACTORY—Cleveland Automatic Machine Co., W. F. Brown, pres., 2249 Ashland Rd., 1 story, 47x140 ft., brick, steel factory addn., to A. M. Higley Co., 2036 E. 22 St. C. B. Rowley & Assoc., B. F. Keith Bldg., archts. Est. **$40,000.**

O., Cleveland—FACTORY—Cleveland Diesel Engine Div. General Motors Co., G. W. Coddington, pres., 1 story, 100x250 ft. brick, steel, concrete factory addn., to Austin Co., 16116 Euclid Ave. Est. **$150,000.** A. Jackson, c/o owner, engr. Awarded 7/24.

Pa., Bath—WAREHOUSE—A. S. Leidy, Bath, produce warehouse and truck garage, separate contracts. **$40,000** with equip. CD 7/16—ENR 7/24.

Pa., Erie—FOUNDRY—Zurn Mfg. Co., J. A. Zurn, pres., 1801 Pittsburgh Ave., brick, steel, concrete, foundry, own forces. $75,000. R. Shenk, c/o owner, company engr.

Pa., Jenkintown — FACTORY — Standard Pressed Steel Co., Stewart Ave., 80x100 ft. and 30x100 ft., factory buildings, to Townsend, Schroeder & Wood, 1700 Sansom St., Phila. Est. **$40,000.** Widdicombe Eng. Co., 1700 Sansom St., Phila., engrs.

Pa., Parkers Landing—WAREHOUSE, etc.—Central Electric Cooperative, Inc., D. R. Edge, mgr., Parkers Landing, 1 and 2 story, steel, concrete warehouse, garage, office, to Gamble & Gibson, Bolivar. Est. over **$40,000** with equip. T. Scheeren, Kittanning, archt.

Pa., Pottstown—PLANT—Spicer Mfg. Co., S. Keim St., 1 story, 100x220 ft. plant addn., to W. B. Zern, 216 Beech St. Est. **$150,000.**

Pa., Royersford — PLANT—Diamond Glass Co., Royersford, 100x200 ft. plant, to W. W. Lindsay & Co., Harrison Bldg., Phila. Est. **$50,000.**

Pa., South Scranton (Scranton P. O.)—PLANT—Sauquoit Silk Mfg. Co., 302 Fig St., Scranton, nylon processing unit addn., separate contracts. **$100,000.**

S. C., Anderson—STORAGE—Appleton Co., Anderson, 1 story, 60x150 ft. cloth storage bldg., 2 story, 60x130 ft. cloth room extens. to Daniel Constr. Co., Anderson. J. E. Sirrine & Co., Greeneville, consult. engrs.

Tex., Wichita Falls—WAREHOUSE—Sproles Motor Freight Co., c/o E. Sproles, Wichita Falls, 1 story, 48x104 ft. brick, steel warehouse, day labor and subcontracts. **$45,000.** F. J. Singleton, Continental Bldg., Fort Worth, archt.

Wash., Seattle—MACHINE SHOP—Doran Co., 63 Horton St., 1 story, 69x305 ft. machine shop, to General Constr. Co., 3840 Iowa Ave. **$60,000.** C. Moffitt, 5622 11 Ave. N.E., archt.

Wis., Superior—POWER PLANT—Superior Water, Light & Power Co., power plant, to R. C. Buck, Inc., 201 Telegram Bldg. **$197,000.**

★**Ont., Toronto**—ASSEMBLY—Research Enterprises, Ltd., Atlas Bldg., 1 and 2 story, 200x500 ft., brick, steel, assembly building, to Milne & Nicholls, Ltd., 57 Bloor St. W., about **$500,000.** Ewart, Armer & Byam, 37 Toronto St., engrs.

Que., Montreal — WAREHOUSE—Distillers Corp., Ltd., 1430 Peel St., 7 story, 100x160 ft. rein.-con., brick, warehouse, Ville La Salle, near here, to A. F. Byers & Co., Ltd., 1226 University St. About **$300,000.** B. R. Perry, 620 Cathcart St., engr.

Sask., Yorkton—WHOLESALE—John Deere Plow Co., Ltd., 119-120 Princess St., Winnipeg, Man., wholesale building to Bird Constr. Co., Ltd., 7 and Smith Sts., Regina. **$100,000.** Northwood & Chivers, 406 Nanton Bldg., Winnipeg, Man., archts.